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ABSTRACT

A variety of general education programs and evaluation approaches are described, with a focus on assessments of student attitudes and achievement. The introductory essay by Jerry G. Gaff, "A Practical Approach to Evaluation," presents a three-step evaluation approach, as well as suggestions for general education program directors, deans, and curriculum committees. The steps involve identifying the reasons for the evaluation, assigning responsibility to perform the evaluation, and articulating principles for conducting a self-evaluation of the core curriculum. Following this essay, general education programs and evaluation approaches of 14 colleges are described in separate articles; topics include basic skills requirements, an Asian Studies cluster, and courses that are sequenced by student developmental level. The sample of colleges are: Syracuse University, Albright College, Seton Hill College, Rochester Institute of Technology, Saint Joseph's College, City University of New York's Brooklyn College, College of Charleston, University of Colorado at Colorado Springs, Gustavus Adolphus College, University of Idaho, Morningside College, University of Santa Clara, University of Tennessee at Martin, and Willamette University. Also included is an annotated bibliography. (SW)

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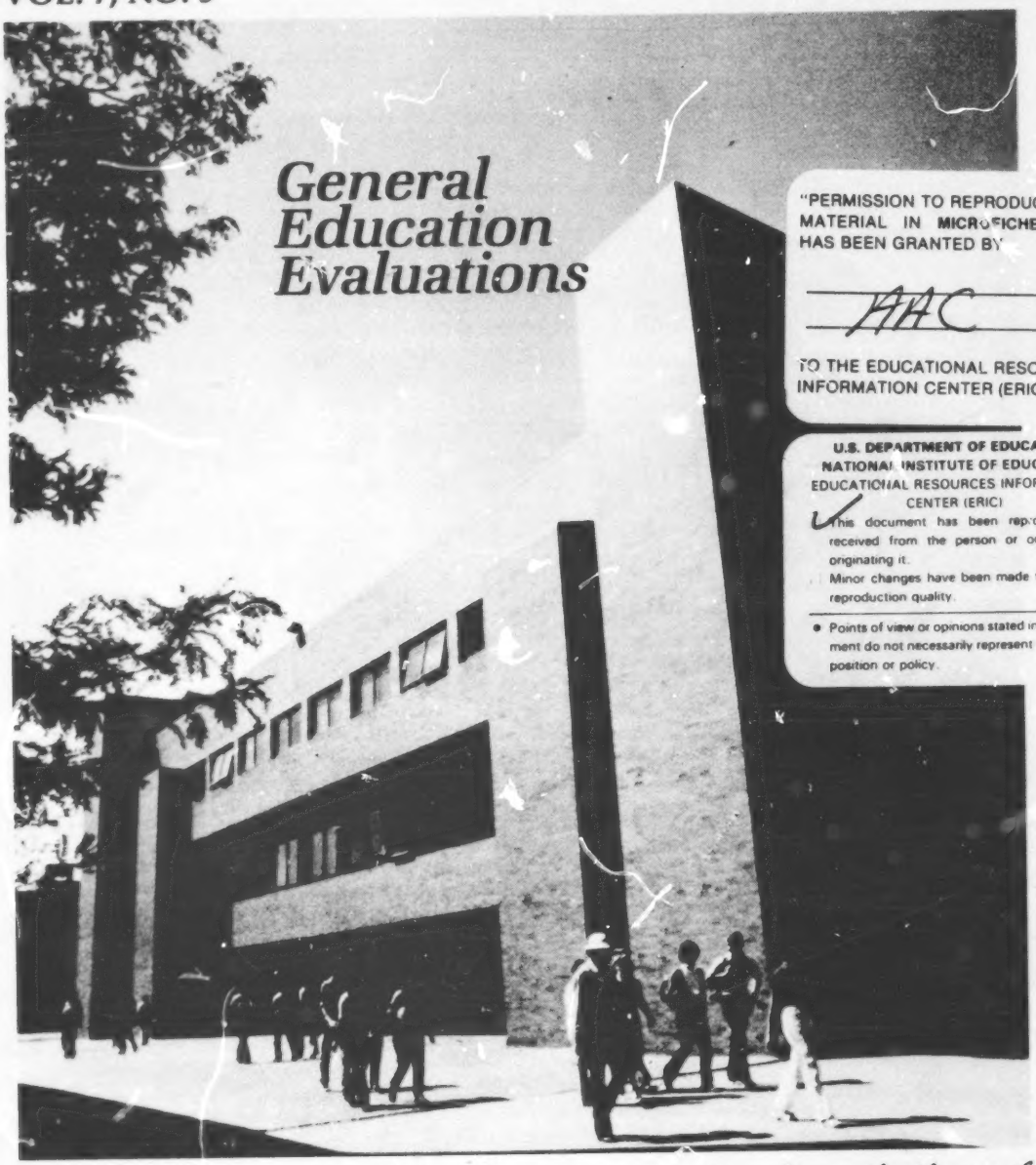

General Education Evaluations

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General Education Evaluations

This issue of *Forum* has two purposes: to describe a variety of general education programs, and to detail some different approaches to evaluation. We have focused on assessments of student attitudes and achievement, recognizing that a true measurement of an institution's effectiveness must also include attention to programs and courses and faculty performance. In the lead essay Jerry Gaff offers a simple evaluation plan that addresses these factors. The issue also examines how different faculties determine which of their courses will satisfy general education requirements.

A Practical Approach to Evaluations

by
Jerry G. Gaff, Dean
Hamline University

Evaluation tends to be an arcane art that is forbidding to the uninitiated. When the evaluation is directed toward general education programs, it is even more mystifying because each program serves a multitude of purposes, there are many kinds of programs, and many of them—as we have been told time and again—are in disarray. Even newly revised curricula that may be tightly focused and enjoy widespread support have many layers of meaning, any of which may figure in an evaluation.

What is a layman to do? One can get fancy and use a lot of sophisticated techniques. But this essay will present a three-step approach with a series of suggestions for the practitioner—directors of general education, deans, curriculum committees—faced with the prospect of evaluating a program. This proposed scheme will cut through the complications and suggest simple, low cost approaches that can be utilized by many colleges and universities.

The first step is to get clear about why the evaluation should be conducted in the first place. Is it because someone else mandated it, perhaps a top level administrator, granting agency, or state agency? If so, the temptation may be to regard the task as perfunctory and of little intrinsic value. This would be a mistake, because evaluation offers inherent values for educators, especially those who fashion new programs. The overriding reason for evaluation is that it stimulates curiosity and fosters self-consciousness. One should be curious about the consequences of educational actions. Do students learn what we teach? Do they enjoy their studies, or are they turned off by them? How can we reach more of them? An evaluation stimulates us to ask the kinds of questions that tickle our curiosity. By learning answers, we confront the consequences of programs, which invariably are more complicated and varied than we originally expected. Evaluation helps teachers, administrators and students to become self-conscious about the effects of their actions.

There are other important reasons for evaluating a course of study.

- Evaluation shifts the grounds of the discussion about general education programs from rhetoric and assertions to a focus on the actual consequences of academic programs, and fosters a respect for the facts to play a prominent role in subsequent debate.
- It helps identify unanticipated problems with the implementation of a program and may suggest mid-course corrections that may be made to improve matters.

- It provides information relevant to making a host of important decisions about the program—is it achieving the intended purposes, are there beneficial by-products, is it cost effective?
- Evaluation can serve political purposes, generating or retaining support for the program.
- It can also be a valuable tool in marketing the program to prospective students, donors, and other important constituencies, assuming the claims for the program are warranted.

Given these inherent values, it would be foolhardy to not conduct an evaluation or to minimize its significance.

The second step is to organize to get the evaluation competently performed. The impulse of evaluation-phobes is to avoid the problems by delegating them away and hiring an external evaluator. While there are important contributions an external perspective may provide, a sounder strategy is for the program leaders to seize control of the evaluation. A high priority for internal authorities is to define the terms of the evaluation and see that they are carried out. "Faculties can design their own procedures of assessment, and groups of related institutions can cooperate in creating valuable sources of comparison," declares the new Association of American Colleges report on *Integrity in the College Curriculum*. Faculty members, aided by administrators and students, can identify the questions that are most worth asking about their program, the kinds of actions such information may usefully support. Assigning responsibility to an oversight faculty committee to develop and approve a plan and designating one person (or more) to administer the evaluation is a fairly straightforward way to assure that some useful information is generated. This internal approach will involve some resources—time and budget—but it is both a low cost and high payoff approach.

Third, several principles should be articulated as guidelines for a home grown evaluation of a core curriculum. The following represent some controversial issues and one person's way of thinking about them.

1. Evaluations are most useful if they stress the formative nature of the enterprise and seek information that will improve its effectiveness. There will come a time when it will be necessary to make some summary statement and decisions, but especially during the early years of a program's existence, evaluation should be an aid to improvement based on the actual experience of participants.

2. Quantitative as well as qualitative information is helpful. It is usually important to count participants, collect some structured questionnaire data, indicate achievement levels, or otherwise have "hard" numbers to report. But it is also useful to give participants an opportunity to frame their own responses to the program, illustrate points with their personal experiences, and cite their perceptions of courses and teachers, for example. There is power in both numbers and the personal anecdote.

3. Although it is helpful to get the responses of participants on campus, an interpretation may be more accurate if the responses are seen in relation to what is happening on other campuses. For example, students typically rate their teachers well above average; it is possible for a teacher to score above average on the rating scale, but well below average for all teachers rated with the same instrument. The comparative approach yields very different interpretations of the same data.

4. Because of the limitations in the state of the art, evaluations should include multiple methods. Questionnaire surveys, personal interviews, and achievement tests, for example, all contribute to understanding the operation and consequences of an academic program, but each is more convincing if coordinated with at least some other method.

5. For the same reasons, it is helpful to include multiple sources of information. For instance, the director of a program may have one perspective, the faculty another, and the students yet a third. Although there is typically a great deal of overlap in views, provision should be made for each perspective.

6. Each major component of the program, as well as the program as a whole, should be evaluated. That is, many general education programs include, for example, writing, computer literacy, and values as components. Any of these could be the focus of small scale evaluations. But just as the program is more than the sum of its parts, so should the evaluation be; thus the more generalized effort is deserving of attention.

These abstractions may be illustrated with reference to what we are doing at Hamline. We are introducing the first phase of a new core curriculum in fall 1985 on a pilot basis before the new requirements go into effect with entering students in fall 1986. The evaluation will be designed to help locate "bugs" in the pilot program that can be corrected before the program goes into full operation. The responsibility for overseeing the program implementation, including evaluation, rests with the General Education Committee. The evaluation plan is not complete, but its main features appear clear. The Freshman Seminar Director will be responsible for evaluating that component. Student and faculty views will probably be solicited regarding individual courses and perceptions of the program as a whole. The Writing Director will evaluate the writing-across-the-curriculum component; although faculty and student views will be gathered, that information will be supplemented by analysis of writing assignments as well as descriptive information about the number and distribution of writing intensive courses. Similar expectations are established for evaluating the oral communications and computer literacy components.

Since these elements are embedded within a larger core curriculum, it is important to assess the experiences, perceptions, satisfactions, problems and suggestions concerning the Hamline Plan as a whole. This will be accomplished primarily by means of a longitudinal study of students. Last year we administered the questionnaire devised by Robert Pace to learn about student experiences—the amount of time they study, relationships with faculty, writing experiments, perceived competencies. Like other questionnaires of this ilk, it provided a

comparison with a number of other campuses, even with a group of other selective liberal arts colleges which administered the form the same year. We will readminister this form periodically and supplement it with a few of our own questions. The Student Affairs Office will review this information to learn how students change over time as well as how they compare with their counterparts at other institutions.

Nobody will defend this as the latest thing in program evaluation. Indeed, it is a very basic approach to evaluating general education. But it is an approach that serves our purposes. It will stimulate curiosity and increase self-consciousness about the core curriculum. And we will have the information to use in a variety of ways for making sure the program works well and, eventually, for promoting the program to both internal and external audiences. Perhaps these principles might serve as a model for other colleges.

Syracuse University

Diversity in Core Components and Evaluation Methods

Spring 1985 marks the graduation of the third class of Syracuse University students who have completed the three-part Liberal Arts Core. Michael Flusche, associate dean of the College of Arts and Sciences, describes the core as a coherent program of structured choices that reflects the diversity of both the institution and the students. A guiding principle in the evaluation of the core is that each of its elements requires a different kind of evaluation method.

The core's three parts are basic skills requirements in expository writing and a foreign language or mathematics; continuing skills requirements in expository writing and mathematics, a foreign language, or computer use; and "clusters" requirements in the College of Arts and Sciences' divisions of humanities, social sciences, and natural sciences and mathematics. Students fulfill the clusters requirements by completing a four-course topical sequence in each of the divisions.

The basic skills requirements include two expository writing courses and a second level foreign language course or a two-course mathematics sequence. After completing the first half of Freshman English, students can choose such options as Writing About Black Culture and Writing and Philosophical Analysis or continue in the two-course, self-paced sequence. Students beginning a foreign language can fulfill that requirement with two six-credit courses. Mathematics sequences include Elementary Probability and Statistics, Introduction to Modern Mathematics, and Introduction to the Concepts of Analytic Geometry and Calculus.

To complete their continuing skills requirements undergraduates take one disciplinary course that emphasizes expository writing. Options range from Afro-American Drama and Writing Seminar in History to Experimental Social Psychology and Primate Evolution and Ethology. The second half of the continuing skills requirement is satisfied with another expository writing course or an advanced foreign language, mathematics, or computer course.

Four-Course Clusters Explore Fields of Knowledge

The clusters are designed to provide "an organized and effective introduction to established fields of knowledge," according to the core catalog. In choosing their required cluster from each of the three divisions, students may explore different areas of interest or choose clusters that are thematically related. Humanities clusters focus on such topics as Classical Foundations, Human Values in Nonwestern Cultures, and American Culture: Art, Literature, and Religion. Undergraduates selecting the latter cluster, for example, learn "how belief and imagination have shaped American life and history." They choose three courses from a list including The Arts in America, American Literature and Culture: Nineteenth Century, and Major Twentieth Century American Dramatists, and one course from such offerings as Native American Religion, American Religious Thought, and Afro-American Religious History.

The core catalog identifies which clusters are thematically related. Students interested in complementing the humanities cluster in American Culture might select the social science cluster titled Inventing America, an examination of how the country and its citizens have evolved; courses in this cluster include American Political Culture, Social History of American Education, and American National Government and Politics.

In the natural sciences and mathematics clusters students investigate "natural phenomena, including the development of predictive explanatory systems and . . . numerical and other abstract structures and relations." Clusters include Biological Basis of Human Behavior, Scientific Method: Uses and Abuses, and Computers, Society and Chemical Technology. The latter is one of four clusters directed at developing technological literacy; the others use biology, geology, and physics as their bases. These clusters introduce students to the discipline (for example, Chemistry for Nonscience Students and General Chemistry Laboratory), and include one technology course (Introduction to Technology: Chemical Technology), and one course analyzing sociotechnological issues (The Social Impact of Technology: Chemical Technology).

Evaluations Began During Core Development

Curriculum reform discussions began in 1975, reports Flusche, and development of the core's various aspects was most intensive from 1978 through 1982. Although the core's structure has not changed since its full implementation in 1979, many of the courses were offered for the first time that fall and have since been modified. The college commissioned the Center for Instructional Development, an office that provides instructional and

course development assistance to any unit on campus, to conduct surveys and interviews with students and faculty in order to identify any problems or deficiencies in the program.

Evaluation of the core's various components is an ongoing interest of the College Curriculum Committee. Rather than setting up periodic reviews of each component, they turn their attention each year to whatever aspects of the core seem to be most problematic, creating ad hoc committees charged with administering the reviews, says Flusche. For example, a committee was established to evaluate the core's writing programs after the College Curriculum Committee realized that students' writing skills were not meeting their expectations. To assist with this review, the committee brought in consultants from the Writing Program Administrators organization. This spring they will receive the consultants' recommendations and begin considering changes in the writing courses.

Faculty members in the various foreign language departments have evaluated the core's foreign language program. Dissatisfied with the program results, they interviewed students, studied other universities' programs, and surveyed foreign language instructors at Syracuse and other universities. Determining that Syracuse's foreign language instruction was too diluted, they developed the new six-credit language courses. They have conducted follow-up studies to determine reaction to the new courses and have been pleased that more students are electing to continue their language studies under the new instructional format.

Another example of the variety of evaluation methods employed by the college is the videotaped process designed by Flusche to determine the technology clusters' impact. In spring 1984 he set up a controlled situation in which groups of three student volunteers were asked to read a one-page essay on electric vehicles and discuss for 12 to 15 minutes the advantages and disadvantages of introducing electric vehicles in the United States. The groups represented students who had completed a technology cluster, were beginning a technology cluster, or had no connection with the clusters. In addition to videotaping the students, a discussion on the same topic with technology cluster instructors was videotaped.

Four faculty raters with an interest in technology—an engineer, a political scientist, a biologist, and a historian—viewed the tapes without knowing which student groups had completed the clusters. They rated each group on a 5-point scale in such categories as "seemed comfortable discussing the issue and able to do so in an articulate fashion" and "was aware that the question of developing a particular technology should be viewed in the context of other possible solutions to the problems being addressed." Flusche developed the categories by analyzing the various components of "literacy," i.e., vocabulary, comprehension, interest, judgment, etc.

Technology cluster instructors also viewed the tapes. Their scores were consistent with the other faculty raters. Students who had no connection with the clusters were judged to be unable to use the essay's data while those who had completed two cluster courses were more sophisticated in their analysis. Students who had completed the clusters received the highest marks from the raters. In addition to demonstrating that the clusters improve students' understanding of technology, the videotapes revealed, for example, that even the clusters graduates were less aware of the essay's bias than the instructors expected, says Flusche.

During the spring 1985 semester Flusche is using more control groups, including engineering and science majors. Based on the results, instructors may make some changes in their courses. Flusche notes that this evaluation method may not be appropriate for other clusters because their educational goals are so closely related to those of other courses. "Because, regretably, attention to technology is still an isolated phenomena," he says, "we can measure the technology clusters' impact. A goal is to make this method invalid by having technology taught in many different classes."

"Outside evaluators ask hard questions. They may not tell you anything you don't already know, but they do confirm your own knowledge and give you the confidence to act on it."

Flusche emphasizes that the core evaluations are done for the college's own benefit. "While our results are sound," he says, "they may not be statistically defensible in a technical sense. The goal is to gather information that can guide our decisions." In addition to using evaluation methods suited to a program's various components, Flusche advises combining consultants with oncampus groups examining the same concerns. "Outside evaluators ask hard questions," says Flusche. "They may not tell you anything you don't already know, but they do confirm your own knowledge and give you the confidence to act on it."

The college's evaluations are not limited to student-oriented outcomes, says Flusche, who notes that administrators also are concerned with the core's effect on faculty and institutional resources. "Staying in touch with your key actors—in this case the faculty—and providing vehicles for feedback is very important," he says.

The recent reports on higher education, such as the Association of American Colleges' *Integrity in the College Curriculum*, also raise questions about how the core compares to their conclusions. "We are constantly looking at all of these injunctions and setting priorities," says Flusche. "In the space of four years you cannot do every-

thing that is being called for but we are doing some ongoing pulsetaking. That's all part and parcel of evaluation." —*P.A.B.*

For more information, contact Michael Flusche, Associate Dean, College of Arts and Sciences, Syracuse University, 329 Hall of Languages, Syracuse, NY 13210. 315/423-1011.

Albright College
Creating Clusters for Curricular Integrity

Believing that their general studies program lacked coherence, the faculty and administrators at Albright College conducted a pilot project to test the validity of clustering general studies courses around a theme. With funding from the National Endowment for the Humanities (NEH), faculty members developed a pilot cluster on Asian Studies. Clusters consist of at least six general studies courses from a minimum of four different departments.

Cluster courses are not required, but are rather an alternative method of fulfilling humanities general studies credits in a more cohesive manner. Albright students are required to take between 40 and 60 credits in general studies, depending upon their major. These requirements include courses in composition, foreign language, science, religion and/or philosophy, and social science. "A big problem with these distribution requirements," says Sarel Fuchs, director of the Asian Studies pilot project, "is that many students choose courses for the wrong reasons—there is no integration in their selection." The faculty, she says, saw the cluster concept as a solution to this problem.

The internal and external evaluations conducted as part of the NEH project have deemed the clustering concept a success, reports Fuchs. As a result, the Asian Studies cluster is now an established part of Albright's curriculum.

In conjunction with its primary objective of testing the validity of clustering as a vehicle for course coherence, the project was also undertaken to create new courses based on the theme, strengthen existing courses, develop cocurricular activities, implement integrative mechanisms, and recruit students to the Asian Studies cluster. All of these goals have been met, notes Fuchs. With the aid of NEH funds, faculty created new courses in philosophy, literature, and political science. Tying these disciplines together is the integrating cluster course, which examines the Far East from the perspectives of various fields. A required component of all clusters, the integrating course is interdisciplinary and team taught.

In addition, Albright financed the development of January interim courses in Asian Art, and a writing-intensive freshman colloquium, East Meets West. Existing courses in history, religion, and language have also become part of the cluster. Asian Studies cluster courses have been well-received, says Fuchs, noting that approximately 100 students are involved. "Considering that, on the average, we have a student body of 1,300, that is a fairly good percentage," she says.

Cocurricular Activities Complement Clusters

Commenting on the importance of cocurricular activities to the purpose of the cluster, Fuchs says that "these events are what holds the cluster together—drawing faculty and students around the theme even outside the classroom." Cocurricular activities have included films, museum trips, lectures, campus gallery showings, and a presentation of Kabuki dance. Fuchs asserts that such activities help to carry the thread of continuity, as cluster professors coordinate their teachings with event topics.

After students have taken two cluster courses, cluster faculty request that they identify themselves as cluster students, and encourage them to take the remaining four needed for recognition. When a student finishes a cluster, a note of this achievement is made on the final transcript. Because Asian Studies was the first cluster developed, those students who complete it are also awarded a certificate of recognition. Fuchs maintains that the Asian Studies theme contributed to the cluster's success. She believes that when assessing the strength of the cluster, the interest and motivation of the students electing it must be taken into account. "Asian Studies is a difficult topic; it is not going to attract lackadaisical students," she says.

"Students are interested in the cluster because they receive a lot of attention from cluster faculty," says Fuchs. "Many of the students feel a camaraderie within the cluster, and a personal commitment to the cluster." Most important, she adds, students realize that their professors share this commitment. "The cluster provides the ideal learning experience," says Fuchs. "Faculty and students are drawn together by a common interest in the subject matter, and nothing else."

That faculty interest remained constant throughout the two-year pilot period is evidenced by the regular meetings held for cluster faculty. Says Fuchs: "Cluster faculty would do readings on their own, then come together to share what they learned. Thus, we found that clustering was a good form of faculty development." Encouraged by the campus response to the Asian Studies cluster, faculty have created seven new clusters in such subjects as Latin American History and 20th Century Philosophy, which have been incorporated into the curriculum.

Methods of Evaluation

The Asian Studies cluster was judged to be viable on the basis of an internal faculty evaluation and an external

evaluation. Albright's internal evaluator administered a Semantic Differential (SD) in 1983 and 1984 to assess the attitudes of both cluster and non-cluster students toward the Asian Studies cluster, general studies, and their academic majors. An SD is a method of measuring the psychological meaning of a concept, i.e., Asian Studies. Students rated Asian studies, general studies, and their academic majors using sets of bipolar adjectives ranging on a scale from 1.0 (good, interesting, meaningful) to 7.0 (bad, boring, meaningless). In his assessment of students after the first year of Asian Studies implementation, the evaluator noticed that while all the students rated their academic majors most favorably, cluster students gave Asian Studies the next highest rating. General studies were rated less favorably by both cluster and non-Asian Studies students. In 1984, however, the evaluator noted a change which indicated that cluster students, as compared to non-Asian Studies students, were developing a more positive attitude toward all of the concepts presented (Asian Studies, general studies, and academic major).

To further measure student attitude, as well as analyze the strengths and weaknesses of the Asian Studies cluster, Albright's faculty evaluator asked all students in Asian Studies cluster courses to evaluate the cluster. According to the evaluator's report, students perceived their professors as doing well in "developing (student) awareness of the inter-relationships in various areas within the cultures, comparing and contrasting Asian culture with American culture, and increasing a sense of tolerance and understanding of cultures different than their own." Particularly telling was the unanimously affirmative response made by Asian Studies students in answer to the question, "Would you recommend the Asian Cluster or other cluster studies to other students?" Depth of understanding of a particular culture and better understanding of people from outside the traditional western world, were noted by students to be the greatest strengths of the Asian Studies cluster in 1983 and 1984, respectively. Weaknesses listed by a majority of students included the dearth of cluster options available (only Asian Studies was offered at the time), and a lack of resource materials.

The second evaluation, conducted by an outside consultant, was, according to Fuchs, "not particularly scientific, but rather the product of the evaluator's reactions to the pilot project." Visiting the campus in 1982 and 1984, the consultant participated in faculty workshops designed to review and plan cluster activities. In his final report, the consultant stated that the Asian Studies cluster pilot "seems to be a clear success when measured against the original goals of the project. New courses have been developed, students have been recruited to participate in the project, integrative activities have been conducted, new clusters are being developed, and faculty workshops have been held."

Making scientific recommendations for the improvement of the program, the consultant emphasized the importance of the interdisciplinary, integrative courses to the coherence of the cluster as a whole. As a result of his observation, integrative courses are now required to be incorporated into all new clusters. Applauding the program objectives, the evaluator noted that he was "especially impressed by the way in which the clusters are designed to enhance the student's understanding of values which are central to contemporary existence . . . The Asian Studies Cluster has contributed substantially to the student's awareness of cultural diversity and the important ways in which differences of national origin shape individual and social values."

"A big problem with these distribution requirements is that many students choose courses for the wrong reasons—there is no integration in their selection."

In addition to these two formal evaluations, Fuchs interviewed several Asian Studies cluster students in 1984 to assess their reactions to the program. She notes that one student "disliked the General Studies Program, but really enjoyed the cluster courses—the only integrity he sees in required courses." Students do not often see the necessity to taking general studies courses, says Fuchs. "They do not see how those courses connect; the cluster gives them a theme and helps them to realize how the courses fit together around that theme." —*N.M.L.*

For more information, contact Sarel Fuchs, Education Department Chair, Albright College, P.O. Box 516, Reading, PA 19603. 215/921-2381.

Seton Hill College

Core Courses Aid Student Development

Until the late 1970s, the core curriculum at Seton Hill College, a Catholic liberal arts college for women, was based on a traditional distribution format. According to Professor of English JoAnne Boyle, the impetus for change developed when faculty realized that "there was a great deal of boredom connected with our core—kind of a general ennui on both sides of the desk." Things came to a head in 1979, when Seton Hill received an invitation from the Council of Independent Colleges to take part in its Quality Undergraduate Education project. The QUE effort, supported by a grant from the Kel-

logg Foundation, gave Seton Hill the opportunity to assemble a Planning Team and begin a lengthy review of their entire curriculum.

Boyle recalls some of the thinking that led to a revitalization of the core: "The consensus was that the largest number of faculty and students would be affected if we decided to look at the old core, and either abandon it or bring it up to date. The sense was, too, that although we all thought we had some idea of the kind of students we were graduating, that idea did not match with the kind of students we *wished* we were graduating—and that if we wanted to get to every one of those students and put a distinctive stamp on her in some way, we had to do that through the group of courses they all took."

Consulting often with the faculty, the Planning Team began to propose revisions—and quickly found that nearly every element of the old core was someone's prized turf. "There was some pain, some anguish," says Boyle. "We had several all-college meetings involving faculty and students, to thrash out philosophies." The most contentious issue, she says, was whether to stay with a distribution-based model or move to one based on outcomes.

The planning process involved research in educational psychology, with two theories finally retaining the most appeal: William Perry's work on student cognitive and ethical development, and the studies by Arthur Chickering on the vectors or stages of student learning. "We felt that our core ought not only to deliver some content recognizable in the sense of traditional core courses, but that it also ought to respond to students developing in various stages," says Boyle, "from what Perry would call dualistic thinking, to multiplicity, relativism, and finally to commitment." Chickering's model—successive growth in traits such as competence, emotional control, autonomy, identity, and so on—was seen as compatible.

Courses Arranged By Level

The result of the research, meetings, and negotiations was a new core curriculum which is described in a handbook published by the college. There are five outcome areas (critical thinking, communication, world orientation, creativity/imagination, and values), and ten course sequences or elements: 1) the freshman seminar, 2) western cultural traditions, 3) foreign languages, 4) mathematics/science/computers, 5) American cultures, 6) other cultures, 7) creativity/imagination, 8) self-awareness, 9) values, and 10) an "integrative seminar" dealing with Christian issues. The elements vary in the number of credit hours required for each, from a low of one to three for the creativity/imagination element, to a maximum of eight to ten in western cultural traditions. Students generally may choose from among several course options in order to satisfy the requirements. In some cases, other strategies may also be selected: the foreign language requirement, for example, may be met by spending a semester overseas. About 48 hours are taken up by the core, out of a total of 128 required of graduating seniors.

There are three levels, says Boyle, with specific elements or courses more or less firmly assigned to each level. As she describes it, the first level includes the freshman seminar, foreign languages, self-awareness (health and physical fitness), and courses pertaining to the science, mathematics, and computer elements. Second level courses, which begin in the students' sophomore year, include the western cultural traditions sequence, courses on American and other cultures, and courses directed at the imagination/creativity outcome. Two semesters of theology and philosophy, taken in the junior and senior years, and a senior seminar in philosophy, comprise the third level. Throughout the range of courses, students encounter a variety of pedagogical strategies, including lectures and other presentations to large audiences, seminar discussions, readings, self-study projects, field trips, "total immersion" (as with a language), and others.

The different core elements were not assigned to their specific levels at random; Boyle says that the outcome areas were kept in mind in arranging the particular sequence and juxtaposition of courses. First level work, for example, "is designed to get students to abandon their belief that there are only two ways of looking at knowledge—there's right and there's wrong—and to get away from looking at it as coming in discrete units. We want them to see that in fact knowledge is seamless, and that we artificially impose categories on it." Second level courses, she asserts, are particularly valuable in promoting Chickering's notion of tolerance, or in Perry's scheme, edging students from multiplistic thinking toward relativism. Likewise, third level course work is thought to encourage the development of purpose and commitment.

Evaluation of the new core has proven to be a complex task, in contrast to the old program, wherein outcomes were not formally or explicitly assessed. The college began with the pilot-testing of the first course element, the freshman seminar. An outside consulting team employed the Measure of Intellectual Development test and other instruments to assess change in critical thinking and writing skills. It was found that students in the interdisciplinary freshman seminars did as well at writing as others in more specialized writing courses, and that experimental-group members were beginning to progress in the desired direction through Perry's levels. Boyle remarks that as the pilot group have now become seniors, the dean of student services has begun to gather a different kind of data, via carefully structured interviews with a sample of the original experimental and control group students. She has discovered that, proportionally, experimental group students are more often represented in positions of campus leadership than control group members.

Interviews Replace Standardized Tests

Boyle emphasizes that the interviewing represents a shift in the college's philosophy of evaluation; they now believe that "formative evaluations of information from

student interviews and writing samples tell us more about our program than do standardized tests." Hence the essence of their ongoing plan, which is to continue with the interviewing and the collection of pre-core and post-core writing samples, all to be examined according to formal rules on content analysis for evidence of progress toward the desired outcomes, and for development as defined by Perry and Chickering. As for weaknesses in the approach, Boyle laments that "we can't evaluate everybody" and that the imagination/creativity element is under-appraised at the moment. She also feels that the program has had a significant (positive) impact on the faculty, but the college has yet to do any systematic checking in this regard.

Apart from the core elements themselves, Boyle is most enthusiastic about the esprit de corps which the program fosters. Freshmen are assigned to seminar sections in groups of 15 to 17, and their advisers, who double as section instructors, see them three or four times each week. The members of each section are also housed together, along with an upperclasswoman who attends all section meetings and who serves as tutor and resident assistant. This togetherness, and the personal and physical risk-taking encouraged in the program as growth and learning experiences, combine to produce a useful cohesion, Boyle believes.

Sometimes the bonding assumes a paradoxical aspect: "The first sophomore class—the entire class—bonded against the program," she recalls. "They hated the sophomore course. The coordinator won the annual "pie-in-the-face contest, which ordinarily goes to the director of food service— so you can imagine how strongly they felt." The students began working for change, with much success, which prompted the observation that the values which the core program sought to engender were showing up in the students' protesting: ability to organize, to direct anger constructively, to promote change. "They'd really learned all those techniques," says Boyle. "You'd have thought Saul Alinsky had come in to organize them. They became a very effective lobbying group." She adds, "They have also turned out to be one of the most enthusiastic groups of students we've ever had." —*T.P.*

For further information, contact JoAnne Boyle, Professor of English, Seton Hill College, Greensburg, PA 15601. 412/834-2200.

"We felt that our core ought not only to deliver some content recognizable in the sense of traditional core courses, but that it also ought to respond to students developing in various stages."

Rochester Institute of Technology

Foundation Building With Liberal Arts Core

With few exceptions, all Rochester Institute of Technology (RIT) baccalaureate students complete the new liberal arts curriculum, a program that combines core offerings with a three-course concentration and a senior seminar. Implemented in the 1983-84 academic year by the College of Liberal Arts, the new curriculum provides an introduction to the humanities and social sciences; general education courses in natural science and mathematics are offered through the College of Science and differ by major.

The new liberal arts curriculum, according to College of Liberal Arts Dean Mary Sullivan, replaces a largely elective general education program that faculty believed was not providing "the basic understandings necessary for a college educated person." The first step in revising the curriculum, reports Sullivan, was formulating a philosophy and goals statement, a task undertaken by the College Curriculum Committee. Approved by the college faculty, the new statement emphasizes that liberal education is "the foundation for the entire educational experience" and complements professional training by nurturing "each student's capacities as a thinking, creating, and responsible person."

Although Sullivan believes it is premature to launch a full evaluation of the new curriculum, studies are being conducted to determine student and faculty reactions to the program. The faculty is interested in ascertaining student and alumni perceptions of the program's impact, as well as actual student outcomes, and collecting data from ongoing faculty critiques of the curriculum.

Six-Part Core Curriculum

The heart of the new liberal arts curriculum is a six-course foundation requirement. In addition to English Composition, students select two courses from the core social science offerings in psychology, economics, political science, sociology, or anthropology, and one course each in history, literature, fine arts, and philosophy or science, technology, and society. Developed by the appropriate academic committees, the core courses are designed "to effectively introduce or represent their general areas and to be suitable for students not majoring in those areas," says Sullivan.

All students complete a literature core course that examines poems, dramas, and narratives from ancient to modern times. The required history course is Modern America or Modern Europe. Social science options include American Politics, Cultural Anthropology and In-

troduction to Economics. In addition to these core courses, some students are required to complete three advanced liberal arts electives.

For their concentration requirement, the undergraduates select three courses from such disciplinary and interdisciplinary groupings as Language Communications, American Artistic Experience, Women's Studies, and Perspectives on Religion. According to Sullivan, the concentrations offer students "some measure of cohesion in at least three of their advanced courses." Popular concentrations are Language Communications and Psychology: Human Growth and Development. The former, for example, focuses on written and verbal communication in various situations and includes such options as Human Communication, Persuasion, and Writing and Thinking. In the interdisciplinary Women's Studies concentration students choose courses ranging from Women in Literature and Women and the Visual Arts to The Economic Role of Women and Women in Contemporary U.S. Society.

The culminating course in the new liberal arts curriculum is the required Senior Seminar. Seniors meet weekly in small discussion groups to explore a topic of "vital social and humanistic importance" and prepare a project or paper related to the theme. The 1983-84 and 1984-85 topic was Television Investigative Journalism. With funding from the Exxon Education Foundation, the liberal arts faculty is preparing seminars for 1985-86 and 1986-87 on the U.S. Constitution.

According to a catalog description, the senior seminar prepares students to "think critically and solve intellectual problems, analyze the processes of value formation, and effectively communicate their ideas orally or in writing." Instructors supplement readings selected by the Seminar Committee with their own materials and help students examine the relationship of the theme to both the liberal arts and science and technology.

Evaluations Measure Student and Faculty Response

Two underlying principles shape the evaluation of the new liberal arts curriculum, according to Sullivan. First, "students have to believe that they are learning something worthwhile or they won't, in fact, be learning anything." Secondly, adds Sullivan, "while students' perceptions are important, they are incomplete and need to be balanced with the judgment of faculty whose responsibility it is to provide them with the best possible liberal education." Administrators used this dual approach in evaluating the old general education program. Activities included transcript evaluations; student, alumni, and faculty surveys; and critiques by external consultants.

To collect student reaction to the new program, faculty members use a machine-scorable evaluation form in all liberal arts courses. In addition to asking for students' response to the course and instructor, the College Curriculum Committee is adding questions that relate the value and purpose of each course to the liberal arts program. For example, beginning in spring 1985 and continuing for the next two years, students in Modern European History will be asked, "Has this course in Modern History given you a greater knowledge of and understanding of the modern world in which we live?"

Because all students take the Senior Seminar as their final liberal arts requirement, they will complete a similar questionnaire that evaluates their experience in the entire program. Questions might include "Did your liberal arts courses enable you to write more effectively" and "Did your study in the liberal arts enable you to think more critically?" The college also is using longitudinal alumni surveys to ask RIT graduates about the importance of their liberal education and their achievement of liberal arts goals.

The College Curriculum Committee will measure faculty response to the new program with surveys and questionnaires directed at the academic committees responsible for core courses and concentrations. The Academic Standards Committee is reviewing three areas of the program that were determined by the faculty to need immediate attention: grading, writing across the curriculum, and commonality in multisection courses. They will make recommendations in each of these areas at a spring faculty meeting.

Beginning in the 1985-86 academic year the faculty is considering using a standardized test to compare the general educational knowledge and skills of RIT's seniors with national norms. They have not yet decided which test they might use, although the American College Testing Program's COMP (College Outcomes Measures Project) test has been used in the past.

"While students' perceptions are important, they are incomplete and need to be balanced with the judgment of faculty whose responsibility it is to provide them with the best possible liberal education."

Sullivan emphasizes that a general education program and its subsequent evaluation must draw on each institution's own strengths and reflect what faculty members believe is worthwhile. Because RIT's new curriculum emphasizes the desired outcomes of a liberal education, the college has opened an academic advising office that helps students understand and thus take full advantage of the new program. The college catalog reinforces this goal by listing each course's content, methods, and objectives.

"The danger in an institution like RIT where students are focused primarily on their major," says Sullivan, "is

that they will take 'any old thing' in liberal arts. We wanted to demonstrate the richness and breadth and depth of these courses and help them make informed judgments." At the same time, stresses Sullivan, identifying course objectives cannot become a cosmetic coverup for curriculum weaknesses. "Our goal is not only to evaluate whether or not students are meeting the objectives," she says, "but also to evaluate the adequacy of the objectives." —*P.A.B.*

For more information, contact Mary Sullivan, Dean, College of Liberal Arts, Rochester Institute of Technology, One Lomb Memorial Drive, P.O. Box 9887, Rochester, NY 14623-0887. 716/475-2447.

Saint Joseph's College

Core Courses Extend Over Eight Semesters

Taking a long-term approach to general education, St. Joseph's College's core curriculum provides students with a 45-credit, eight-semester common experience designed to help them integrate knowledge. Implemented in 1969, the core is "firmly in place," according to Vice President for Academic Affairs John Nichols, but "still shows healthy signs of openness to change and willingness to improve." Maintaining that the previous general studies program was distributional and disjointed, Nichols says that the core, conversely, is integrative and interdisciplinary. "I use the word 'integrative,'" says Nichols, "in the same sense that Cardinal Newman talked about the integrative habit of mind—seeing how information from one point of view on a problem should be put together with information from another perspective. This method of inquiry is one of our objectives. It is something we deliberately try to cultivate in our students as they go through the core."

Through their experiences of teaching the core, the faculty achieved consensus on what they believed the objectives of the core should be; thus the formal goals of the program are: to develop cognitive and communication skills; to build a community of common seekers after truth; to expand awareness to the many dimensions of reality; to cultivate the integrative habit of mind; to evoke formulation of, enthusiasm for, and commitment to values; and to witness to specific Christian values.

The core curriculum is divided into ten components taken over the four-year undergraduate period. "We wanted to counteract the tendency students have of seeing general education as something squeezed into the first two years," says Nichols, "—something that you have to get out of the way before you go on to the important work in your major." By evenly distributing the core over eight semesters, he notes, faculty are able to make students realize that the core is "every bit as important as their majors."

In a report describing the core, Nichols asserts that the "focus of the ten successive segments of core shows a progression from a centering on the self, to a broader focus on western civilization, to an even broader global and cosmic perspective in the junior and senior years." In core 1, The Contemporary World, freshmen explore America since World War I, and try to assess their role in society. For the second semester of freshman year, and throughout the sophomore year, students focus on history, looking first at the Graeco-Roman/Judaeo-Christian world in core 2, The Roots of Western Civilization; next at the Middle Ages in core 3, The Christian Impact on Western Civilization; and finally at present times in core 4, The Modern World.

Juniors simultaneously encounter science and cross-cultural studies, cores 5 and 6, Man in the Universe, presenting them with the themes of cosmic, biological, and cultural evolution, and cores 7 and 8, Non-Western Studies, fostering global awareness through examination of the peoples of India, China, Africa, and Japan. In cores 9 and 10, Toward a Christian Humanism and Christianity and the Human Situation, seniors review the materials they have studied during the last three years and synthesize the information in the context of "Christian humanism," using philosophy and theology to come to a personal definition of what it means to be human and Christian in today's world.

Each core component is team taught by faculty from various disciplines and combines lectures and discussions. These two segments allow faculty to function as both expert and co-learner, the latter role, notes Nichols "ruling out any 'dispenser/receiver' relationship in favor of a more collaborative one between professors and students." Nichols indicates that the faculty commitment essential to the success of the core is not lacking, noting that more than 50 percent of the faculty participate in the core, either by teaching or giving guest lectures.

Assessing the Core's Performance

In 1979, the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) selected St. Joseph's as a participant in its National Project IV: Examining the Varieties of Liberal Education, which allowed the college to conduct a 17-month evaluation of its core program. Using a variety of tests, both internal and external, Nichols, as core coordinator, sought to discover the impact of the core on students in the class of 1980, focusing on the changes that had occurred in them as they passed from freshman to senior year.

Although there was extensive quantitative analysis, Nichols asserts that the evaluation was rooted in Malcolm Parlett's concept of "illuminative evaluation," substituting an "anthropological" approach for the traditional educational psychology approach to assessment. In reporting his findings, Nichols maintains "we always looked at the students and faculty—the participants themselves—to uncover the meaning of all that other data."

Nichols used three external instruments, the Omnibus Personality Inventory (OPI), the California Psychological Inventory (CPI), and the Defining Issues Test to look at freshman to senior changes. The OPI and CPI (given to 541 students), measure how various dimensions of a student's personality such as "tolerance," change through the four years of college. The Defining Issues Test, developed by James Rest, analyzes levels of cognitive moral development. Entering freshmen and seniors were given portions of the OPI and CPI dealing with nine measures of personality traits (thinking introversion, theoretical orientation, complexity, altruism, well-being, responsibility, achievement via independence, achievement via conformity, and tolerance) in 1976. In 1980 the entire tests were given, each to half of the senior class. Nichols asserts that the tests indicated that students made "substantial gains on the nine measures" as a result of their exposure to the core. Examining students' answers to such questions as "I would like to know more about the history of human thought," and "only a fool would try to change our American way of life," the faculty noted that students were making desired changes in such areas as global awareness, responsibility, and breadth of interest.

The results of the Defining Issues Test, given to 184 freshmen, 21 juniors, and 75 seniors over a period of three years, indicated that students, who showed 16.8 percent more progress on the test than the national norm groups, benefit from core discussion sessions which, assumes Nichols, promote cognitive moral development. "All of the literature on values pedagogy," says Nichols, "comes to the conclusion that discussion and exposure to alternatives is *the* type of intervention which best promotes growth in values."

Interviews Supplement Hard Data

In addition to collecting hard data through surveys and tests, five specially trained faculty interviewed 124 students and 30 faculty, basing their questions upon the six core objectives (skills, community, awareness, integration, values, and Christianity). In his report about the evaluation of the core, Nichols maintains that the students interviewed "perceived growth in themselves that they attributed to the core program and not to their major or to maturation." He notes that the three benefits of the core most often mentioned by students were that it "made them more open-minded, aware of alternatives, and appreciative and capable of interdisciplinary work." Students also believe they gain strong communication skills from the core, developing prowess in both writing and speaking. "We have an eight semester writing program," says Nichols, "so the pressure is on the students throughout the core to acquire various writing skills."

Students' positive response to the core is echoed in the results of an internal benchmark survey in which freshmen, juniors, and seniors rated questions about the core discussion sections on a scale of 1.0 (positive) to 5.0 (negative). Nichols says that there was "a very clear and . . . interesting developmental pattern from freshmen to juniors and seniors," noting that while freshmen enjoyed the supportive nature of the discussion groups, juniors valued them for promoting discussion as a method of learning, and seniors perceived them as aids to developing their own commitments. "This progression reflects rather well the goals that the faculty had in mind when they made discussion such a large portion of the core, namely to turn students into active and collaborative (rather than passive and competitive) participants in the learning process," says Nichols.

To test students' feelings about each core component, the faculty designed attitudinal surveys which were administered to sophomores and seniors in 1978 and 1980. Students rated cores 1 through 10 on a scale of 0 to 4. One significant finding that Nichols emphasizes is that although students at the sophomore level rated cores 2 and 3 poorly (maintaining that the study of ancient and medieval history was too boring), 26 percent of the seniors tested said they appreciated these cores more now that they were older. "It is very clear from the data," he says, "that the ratings of the core are more and more positive as the semesters go by. Students gradually perceive what core is all about, and they judge it more and more favorably."

Outside consultants examining faculty response to the core found that professors shared their students' interest in and appreciation of the program. Wrote one evaluator: "It seemed obvious . . . that faculty members got a lot out of taking part in core. They are personally stimulated; they find it interesting in an intellectual way . . . In collaborating together, and dealing with each other over issues of substantive business, I suspect that they get to know each other well and that there are myriad small benefits for the community as a whole."

"We wanted to counteract the tendency students have of seeing general education as something squeezed into the first two years—something that you have to get out of the way before you go onto the important work in your major."

In light of the core's success, Nichols plans to conduct ongoing evaluations to ensure the continuance of the program's impact on students throughout their undergraduate years. "The instrument that I am really 'hot' on now is Robert Pace's College Student Experiences Questionnaire (CSEQ), he says, noting plans to administer it in 1986. "The reason I like the CSEQ," he adds, "is because it is a total institutional survey," its scope ranging from questions about students' use of libraries and interaction with faculty and peers, to their perception of the institution as an intellectual and social community. "Basi-

cally," says Nichols, "the CSEQ is constructed on the hypothesis that if you find out what students spend their time on, that tells you a lot about what is going on at your institution."

Reflecting on the implications of the core, Nichols states that it has had "reprecussions on major programs, too. We have begun to see things much more in terms of an eight semester rhythm rather than 16 weeks. Core has given us a sense of sequential development, helping us to be sensitive to how students grow into things as they go through their four years." —*N.M.L.*

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ADDITIONAL PROGRAMS

City University of New York Brooklyn College

Evaluating a New Core Curriculum

After seeing its enrollment nearly double as a result of an open admissions policy in the late 1970s, Brooklyn College faculty members determined that the college curriculum should be standardized. Distribution requirements left instructors directing their teaching to the lowest common denominator, according to Bruce Hoffacker, assistant to the provost. "You never knew what courses your students had taken before they sat down in your classroom," he says. "You did not know what knowledge you could presume in developing your own approach." The Faculty Council formed a committee to develop a standardized curriculum and adopted the proposal for a common core of ten newly designed courses. The core was implemented in September 1981.

All students must take the core's ten courses. The central element of its philosophy, says Hoffacker, is that students should have a common basis for their later studies, regardless of their field.

The common core also helps students increase the sophistication of their work. The core is divided into two tiers, with five courses in each. Students cannot begin second tier courses until they have completed tier one. Tier one instructors emphasize basic skills, according to Hoffacker. "Thus, tier two faculty feel that they have something to build on and can require more from the students," he says.

Classical Origins of Western Culture is the first course of the first tier. Students study the ancient Greeks and Romans and cover such topics as the rise of Athenian democracy, the foundations of power, and the dynamics of imperialism. Introduction to Art and Introduction to Music are the concurrent courses of Core Studies 2, while People, Power, and Politics is the theme of Core Studies 3.

The effects of revolution, industrialization ,and nationalism on European and American civilization since 1700 are discussed in Core Studies 4, The Shaping of the Modern World. Tier one's final course is Introduction to Mathematical Reasoning and Computer Programming.

Tier two consists of Landmarks of Literature; Science in Modern Life I: Chemistry and Physics; Science in Modern Life II: Biology and Geology; and Studies in African, Asian, and Latin American Cultures. The final course in the core curriculum, Knowledge, Existence, and Values, considers the relation between knowledge and belief and focuses on questions of ethics and human values.

All core faculty are required to include a writing component in their courses. In addition, all freshmen must take English 1 and 2, and all students must complete a foreign language requirement.

Evaluation Examines Impact on Students, Faculty, and Institution

Administrators plan to conduct the first formal evaluation of the core after June 1985, when the first group of students subject to the core requirements will graduate. Developed by the Core Curriculum Committee of the Faculty Council, the evaluation design is currently under consideration and has not yet been approved by the administration.

The committee plans to determine the impact of the core on students, faculty, and the institution. In initial interviews with the first students to complete the two-tiered core program, faculty found that nearly all of the students did not like being required to take the core but "loved" all the core courses. The committee is interested in learning if the core has influenced students' choice of majors, says Hoffacker. "We have some impressionistic evidence that accounting students have become classics majors, for example, but we need a more systematic evaluation of that kind of phenomenon." This information will be collected from questionnaires given to all graduating students. The committee will follow up with a sampling of in-depth, open-ended interviews to determine students' attitudes toward the core.

In addition, the evaluation plan will help the college determine how faculty view teaching in the core, according to Hoffacker. "We believe that the core has brought a new level of academic activity and intellectual discussion to the college," he says. "Many faculty have told us that their approach to teaching has changed because of the core curriculum. But once again, we want to develop a body of rational information and a more complete set of opinions on how the faculty view the core." All faculty, regardless of whether they teach in the core, will complete a questionnaire on this topic; some will participate in open-ended interviews on their attitudes.

"The institutional impact issues are fairly straightforward," Hoffacker says. "We will ask questions such as, What is the distribution pattern of majors or of upper division electives? Do we see any changes in the patterns of attrition because of the core? Will students go to other institutions where they have more freedom? We will look at our retention and attrition data and determine if there are any changes and if those changes are directly attributable to the core. Of course, not all changes will be." This data will be generated by the institutional research office and include transcript information, FTE data, enrollment patterns, and student demographics.

"Simply getting the core on paper and approved by the Faculty Council," says Hoffacker, "does not mean that we have a program that works as effectively for students and faculty as we would like it to. Our evaluation plan is designed to gather information primarily so that we can make the core work more effectively." —*S.H.*

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College of Charleston

Humanities Minor Program Fulfills Core Requirements

With funding from the National Endowment for the Humanities (NEH), College of Charleston faculty members have designed a humanities minor that includes alternative means for fulfilling general education requirements in the humanities. Studia Humanitatis includes a three-semester interdisciplinary sequence on western culture, four-course "clusters," and an interdisciplinary senior seminar. Faculty members began offering Studia Humanitatis courses in spring 1984. Program evaluations have included consultant reviews and analysis of student ratings.

The College of Charleston's general education program, which was revised five years ago to increase humanities course work, consists of the following requirements: two freshman composition and literature courses, eight natural sciences credits, six mathematics or logic credits, six social science credits, completion of the intermediate level of a foreign language, two European history courses, and twelve humanities credits. Students can satisfy the latter two requirements with Studia Humanitatis components.

The new humanities program begins with three team-taught courses that offer an interdisciplinary view of western history from ancient times to the present. Three instructors representing different humanities disciplines teach each course, which includes lectures and small group discussions. Students examine the philosophy, art, and literature of the various periods and learn how their interrelationships shaped western culture. Studia Humanitatis Director Norman Olsen, Jr. emphasizes that the courses focus on European culture, although relations with the United States are discussed. The courses are the Ancient World through the High Middle Ages, the Renaissance through the French Revolution, and the Industrial Revolution to the Contemporary World; the latter two satisfy the European history requirement.

Students can earn the twelve required humanities credits with Studia Humanitatis' second component, the four-course clusters. The clusters, says Olsen, provide a unified picture of a topic, area, or time period and add coherence to the humanities requirements. Each cluster includes a required team-taught, interdisciplinary course that serves either as an introduction to the cluster or as a culminating review. For example, the American studies cluster begins with an interdisciplinary course that introduces the field. Students complete the cluster with three electives in American art, drama, music, or literature, selecting no more than two courses from any one department. Other clusters focus on women's studies and values and the marketplace.

Studia Humanitatis' final requirement is a senior seminar. Related to students' cluster theme, the seminar "draws together the different threads" of their courses, says Olsen. Students produce research papers that explore topics covered in their minor courses.

To earn the 24-credit Studia Humanitatis minor, students must complete the program's three components, which add only six credits to the college's humanities requirement. Olsen speculates that approximately ten percent of the students will satisfy some facet of their humanities requirements through the Studia Humanitatis program.

Consultant and Student Evaluations

In addition to overseeing implementation of the program, the Studia Humanitatis advisory board is responsible for its evaluation. Outside evaluators have visited the campus, interviewing faculty and student participants. Their reports, says Olsen, have been very valuable and pointed out potential problems. For example, one consultant warned against placing too much emphasis on interdisciplinary courses because of the costs involved. "Sometimes someone from the outside has a better sense of perspective on a program than the people who are close to it," says Olsen. "We tend to see the trees, they see the forest."

The advisory board also reviews student feedback on teaching, which is collected in questionnaires distributed in all courses. They discuss any concerns with the participating professors, although Olsen notes that there are few problems because the college's best instructors have elected to teach in the program. Future plans include additional outside evaluations and comparison of Studia Humanitatis students with those completing their humanities requirements through the standard courses.

Olsen emphasizes that the new program has broadened faculty as well as student perspectives. Visiting scholars have led workshops for faculty interested in learning more about their specialties, in addition to participating in the cluster courses and senior seminars. These workshops have helped faculty develop the interdisciplinary offerings of the introductory sequence and the clusters. —*P.A.B.*

For more information, contact Norman Olsen, Jr., Chairperson, Department of English, College of Charleston, Charleston, SC 29424. 803/792-5664.

University of Colorado At Colorado Springs

Interdisciplinary Focus on the Past

Concerned that the campus emphasis on engineering was shortchanging the liberal arts, University of Colorado at Colorado Springs faculty members have developed a core humanities curriculum (CHC) that builds on their interests and expertise. Implemented as a pilot program in fall 1983, the core begins with two multidisciplinary courses that focus on two years, a century apart (For example, the 1984-85 academic year courses are 1848 and 1948). Students complete the core by taking two advanced disciplinary electives related to the themes covered in the introductory sequence.

Scheduled to be required of the class of 1990, the CHC may be fully implemented in fall 1985, depending upon faculty assignments, reports Joan Klingel, director of the National Endowment for the Humanities-funded project. During the last two years CHC faculty have evaluated both student and faculty reactions to the core courses, which are currently offered as humanities electives.

Klingel, who is assistant dean of the college, describes the previous general education requirements as "the proverbial cafeteria of courses." While students still complete 36 hours of general education, divided equally between the humanities, social sciences, and natural sciences, the number of courses that satisfy these requirements have been greatly reduced in recent years. The CHC, according to Klingel, is a further attempt to ensure that students' exposure to the humanities provides both breadth and depth of understanding.

The CHC's introductory sequence integrates lectures with small group discussions. Discussion leaders, as well as guest speakers from other departments, present lectures on the course topic from their disciplinary perspectives. For example, the fall semester course on 1848 examines the industrial, political, and social revolutions in England, Europe, and the United States. Presentations include a discussion of Dickens' *Hard Times* and individual responses to industrialization and a lecture on *The Communist Manifesto* and the relationships between economic and political conditions.

In the course on 1948, the emphasis shifts from the fall's focus on "the terrible human price paid for material and mechanical progress" to "the anxiety that accompanied scientific/technical leaps in atomic research," says Klingel. Lectures range from a history presentation on Germany and the Cold War to a recital of Shostakovich's works by the Da Vinci String Quartet and a discussion of how post-war Russian politics affected creativity.

The CHC's "depth of understanding" for the 1848/1948 pairing is provided in such disciplinary electives as a philosophy course on existentialism and an English course devoted to Political and Social Reform Novels of Nineteenth and Twentieth Century England and America. Students must complete two courses from among the available options.

Evaluations Help Fine Tune the CHC Courses

To help fine tune the core, instructors have designed questions that supplement the standard university course and teaching evaluation forms. Questions ranging from "What did you learn about the nineteenth century?" to "What would you add (or eliminate) from this course?" provide important student feedback on the pilot courses, says Klingel. For example, student comments resulted in the introductory courses meeting twice instead of once a week.

Because the CHC faculty like and respect each other, their meetings are open and uncensored, says Klingel, who emphasizes that this climate allows for constructive criticism. In addition to analyzing student reactions to the courses, instructors evaluate their own experiences in written evaluations. Agreeing that many of their students are not prepared for CHC's critical reading and writing assignments, they have informed the local school districts, which provide 70 percent of the university's enrollment, of the problem.

To ensure grading consistency in the CHC, the instructors developed evaluation sheets that detail the criteria to be used in grading papers. After reviewing the evaluation sheets, which are also shared with students, instructors discovered that students in the CHC electives who had taken the introductory sequence, had better writing skills and were better able to deal with primary sources and understand the relationships between the humanities disciplines.

An outside consultant will evaluate CHC at the end of the 1985-86 academic year. Klingel notes that the college policy of giving evaluators open access to students and faculty ensures that their report will agree with internal assessments and creates an environment congenial to improvement.

CHC faculty are currently developing an introductory sequence on 1492 and 1792 (only one pairing will be offered each year). Klingel speculates that a University of Colorado system review may result in similar core programs in the social and natural sciences. She credits CHC with promoting curriculum building among the humanities departments and eliminating "FTE-wars" that had produced courses designed solely to attract students "shopping around for classes." —*P.A.B.*

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Gustavus Adolphus College

Detailing Course Criteria

Beginning in fall 1985, Gustavus Adolphus College students will select one of two new general education programs developed during the last three years with Bush Foundation funding. Curriculum I, which most students will pursue, arranges courses by areas of learning rather than by department or academic division. Believing that a proliferation of general education electives had weakened the Bachelor of Arts degree, faculty prepared detailed criteria for course approval in each of the program's seven areas. The criteria, says Thomas A. Gover, assistant to the dean for general education, have allowed faculty "to gain better control over the content of their students' liberal education."

In contrast to Curriculum I's options, Curriculum II consists of twelve-and-a-half integrated courses offered in sequence during students' four years. A faculty team works with students throughout their entire program, with a new team recruited each year for the entering class. Using their interests and expertise, the teams design a program that follows the basic Curriculum II outline, a list of courses with such titles as The Historical Perspective, Understanding the Natural World, and The Individual and Morality. Approximately 60 students, or ten percent of the freshman class, can choose Curriculum II. Gover emphasizes that the two curricula are different approaches to the same goal.

Curriculum I's areas of learning are the arts; religion; foreign cultures; personal fitness/lifetime sports; quantitative and empirical reasoning; human behavior and social institutions; and meaning and value, the use of language, and the historical process. Requirements range from four courses in the latter area to one course from the religion options. Instructors will emphasize historical and international themes in many of Curriculum I's courses, says Gover. In General Chemistry, for example, students will learn the human faces behind chemical discoveries and ideas.

After faculty approved Curriculum I's design, Gover appointed committees charged with developing area criteria. The resulting standards outline the kowledge and skills to be gained in each approved course. For example, students must complete two art courses, one in participation and one in appreciation. Criteria for participation courses include "develop(ing) the craft, skills, and discipline necessary for the practice of one of the arts" and "foster(ing) the development of personal expression and creativity."

Art appreciation courses must "include an indepth study of one of the arts; promote understanding of the interaction between the arts, culture, and society; (and) develop analytical, interpretive, or evaluative skills appropriate to the study of art works," among other criteria. In Appreciation of Fiction, students learn how to interpret short stories and novels by focusing on "narrative strategies, formal structures, and patterns of details." Music of World Cultures examines the music, musicians, and instruments of nonwestern cultures.

Courses under the area of meaning and value, the use of language, and the historical process must "cultivate the arts of reading, writing, and speaking" and introduce students to one of the three areas. Meaning and value courses focus on western philosophy and help students deal with conceptual problems, while historical process courses explore change and continuity over time and connections between people and events. Approved courses include Concepts of History and Christian Ethics and Social Issues.

Area Committees Evaluate Curriculum I Courses

To ensure that criteria are met, area committees evaluate each proposed Curriculum I course. Instructors document how their courses satisfy the criteria and either they or department representatives appear before the committees to answer questions about the proposals. Committees have rejected some courses, says Gover, who notes that instructors receive directions on how to improve their courses for resubmission.

Approved courses are next reviewed by the Academic Policy and Program Committee, an elected group of faculty, administrators, and students which oversees the entire curriculum. Their job is to examine how the area courses fit into Curriculum I as a whole. Gover estimates that about a third of the faculty has been involved in approving Curriculum I courses by this point. Because of the extensive reviews, no Curriculum I courses have failed the final step of full faculty approval, he reports.

In fall 1985 administrators will begin collecting base line data to determine how the new curricula affects student retention and recruitment during the next few years. Because no one on campus is expert at program evaluations, Gover anticipates working with an outside consultant who can develop an evaluation that the college can implement itself. Faculty members also have begun administering a standard writing test to a select group of seniors to measure the impact of the college's new writing across the curriculum requirement. —*P.A.B.*

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University of Idaho

Defining General Education

Prompted by the Carnegie Foundation's description of general education as a "disaster area," the faculty and deans at the University of Idaho began a critical examination of their own program in 1977 and found it lacking. Each of the university's eight undergraduate colleges had its own requirements, with courses varying significantly from each other. "A committee established to study the question of general education concluded that we did not really have a general education component," says Galen O. Rowe, chairperson of the University Committee for General Education (UCGE). "The committee recommended that we establish a university-wide general education component, that would assure that all students would have a body of knowledge and skill representative of a high quality baccalaureate degree."

Implemented in 1983, the core curriculum was established by the UCGE, a governing body made up of faculty representatives from each undergraduate college and department, which oversees the development of the general education program. UCGE members chose the courses to be incorporated into the general education core on the basis of their conformity with six formal core course criteria—a dean/faculty consensus, says Rowe, of what should constitute a general studies core. These criteria state that the general education courses should stress common knowledge, be presented early in a student's university career as a foundation for upper division work, have broad applications, require active participation from students, be discipline/inquiry-based, and offer exciting educational experiences. Faculty members modified existing courses to meet these criteria. The core courses are divided into five categories: communication; natural and applied sciences; mathematical, statistical, and computer science; humanities; and social sciences.

The 48-course core, from which students are required to take nine courses representative of all five categories, is composed of such courses as Advanced Expository Writing, Elementary French, Principles of Chemistry, and Ethics.

Rowe notes that many of the courses, as preparation for more specialized work, are interdisciplinary in scope; faculty members from the departments of English and foreign language team teach Literature of Civilization, for example. "We would like to have faculty members who are experts in the more specialized areas participate in these broad foundation courses," says Rowe. "That is what we are working on, and we are seeing progress."

Core Divisions Review their Courses

Before assessing the core, an ad hoc committee of the UCGE made general recommendations to guide its evaluations, which have now become the university's primary evaluation procedures. Subcommittees of each core division review their courses and report to the UCGE on the quality of such elements as syllabi, tests, and written and mathematical requirements. In addition, they try to determine the effectiveness of the core in increasing the exposure of students to a variety of disciplines, and survey core faculty to determine whether they are meeting core objectives.

Because the core has been in place for a short time, student achievement outcomes have not yet been measured; however, the assessment activities recommended by the UCGE have been implemented and provide some data. "We did a statistical analysis to determine whether more students were taking the same courses," says Rowe, "and our results were positive in that regard." In the year before the general education program went into effect, he notes, only 23 of the 48 courses now in the core had enrollments of students from all eight undergraduate colleges. In 1985, when the core was established, this number rose to 30; thus more students were being exposed to a common core.

While divisional subcommittee reports have lacked sufficient uniformity to allow the formation of a general statement about the quality of core instruction, the separate examinations of each division have led to specific recommendations for improvement of the core as a whole. Recommendations call for such measures as reducing course section size to increase student participation, increasing communication among core faculty to promote commonality, and reinforcing the sequential structure of the core to emphasize its role as the basis for advanced instruction.

A Core Course Evaluation Form, introduced by the social science division subcommittee, is now being modified for use by all division evaluators. "We like this form because it gives us a way of organizing information about what is expected of students in the courses—how much reading, writing, oral presentation, etc." says Rowe. Given to core faculty and heads of departments containing core courses, these evaluation forms will be used to determine whether the core courses are at acceptable levels of quality.

Commenting on the core's progress thus far, Rowe asserts that "there is no doubt that the core is doing positive things." Questionnaires show that faculty enthusiasm for the core is strong, "and that," says Rowe, "is an indication of its success." Questionnaires assessing students' estimation of the general education program will be administered after the core has been in place for a full four years. Although their feelings have not

been formally recorded, Rowe believes students are already beginning to appreciate the core. "Our student newspaper came out with a front page story on the core and gave it very high marks," he says. —*N.M.L.*

For more information, contact Galen O. Rowe, Chairperson, University Committee for General Education, University of Idaho, College of Letters and Science, Moscow, ID 83843. 208/885-6426.

Morningside College

Strengthening the Core to Improve Competencies

During the mid-1970s, faculty members at Morningside College were dismayed to discover that, in the absence of specific general education requirements, a majority of students were electing courses which related to their majors, leaving them weak in many liberal arts areas. According to Vice President for Academic Affairs R. Franklin Terry, academic advising alone was not a strong enough incentive to steer students into a well-rounded program. He notes that the poor results of a Watson-Glazer standardized test administered to students in 1977 and 1978, which sampled student achievement in religious literacy, aesthetic awareness, communication, understanding of great ideas, and critical thinking, confirmed the faculty's fears that students were not receiving a strong liberal arts foundation.

Believing that the college's mission statement should serve as a guide to achieving educational goals, the faculty revised it in 1978 to include six primary objectives: clarity and skill in the arts of communication; proficiency in the logical, historical, aesthetic, empirical, descriptive, and experimental methods of understanding the universe; the development of self-initiated learning; awareness of the intercultural and international nature of the world; acquaintance with and understanding of a variety of cultural patterns and religious traditions; and the acquisition of appropriate scholarly, occupational, and professional skills. Based on these goals, the institution extended its 27-credit core to 41 credits in 1981. All students, regardless of major, are required to take courses in the humanities, natural sciences/mathematics, social sciences, fine arts, and physical education, as well as an interdisciplinary seminar focusing on such subjects as cultural awareness and ethics. In addition, students must complete non-credit requirements in college orientation, written language proficiency, and oral proficiency.

Maintaining its commitment to assessing the general studies program, administrators, in conjunction with the implementation of the revised core in 1981, began to employ the American College Testing Program's (ACT) College Outcomes Measures Project (COMP), to evaluate general knowledge of graduating seniors. "The COMP instrument," says Terry, "measures not only what students know, but how they can apply what they know to six major areas of general education. These skills demonstrate the utility or applicability of knowledge in contexts simulating those students will find at work, home, leisure activities, and in many social and cultural experiences."

The COMP test's six areas are: social, economic, religious, and political institutions; scientific and technological developments; artistic forms and activities; communications skills and the use of symbols; solution of various social and personal problems; and clarification of personal values and decision making. Although these six areas do not correspond exactly to the six educational goals in Morningside's mission statement, Terry believes that they "sufficiently cover the competencies essential to a strong program in liberal studies."

A multifaceted, multiple choice test, the COMP, taken on a voluntary basis, presents students with groups of materials which represent the various kinds of ways in which people take in the world around them. Questions relating to the six areas of general knowledge are based on questions from such media as magazine articles, short stories, graphs, and television and film clips. Administrators send the completed COMP tests to ACT, which scores them and compares the results to those of other institutions nationwide. In an effort to make longitudinal assessments of student progress, the college in 1983 began to administer the COMP to freshmen, whose scores are then compared to those of seniors with comparable academic backgrounds (such as ACT score, major preference, grade point average). Using this information, ACT evaluators estimate a projected gain in scores between the freshman and senior years. Terry notes that in a 1984 assessment of the COMP, ACT maintained that the hypothetical average senior at Morningside scored in the sixty-seventh percentile on total score compared to senior norms. Stated the ACT report: "...levels of proficiency for this sample of seniors were quite high, above two-thirds of the seniors in the reference group."

Commenting on the college's emphasis on general education, Terry maintains: "We have long been committed to the liberal arts principle for every major; our commitment as a Church-related (Methodist) college is to the whole person and to the notion of lifelong learning." Terry notes that using such instruments as the COMP will help to illustrate the validity of the college's mission. "We make these claims about liberal studies and the development of general knowledge," he says. "This is an effort to test what is a college education really provides." *N.M.L.*

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University of Santa Clara

Integrating a Curriculum

A Jesuit institution, the University of Santa Clara has always had a curriculum emphasizing the humanities, as well as moral values and training for leadership. In 1981, after three years of study, the university introduced a revised general education curriculum with increased emphasis on the humanities for all undergraduates. During the 1984-85 academic year, faculty members and administrators are developing ways to achieve greater integration in this curriculum. At the same time, they are designing methods to evaluate it on a regular basis.

The University Curriculum, as the general education program is called, has seven educational goals, with course requirements to meet each goal. The course areas relating to the goals are composition and literature, western culture, foreign language, social sciences, mathematics and natural sciences, ethics, and religious studies. Selected foreign language courses, for example, fulfill the goal of understanding another culture while such ethics courses as Ethical Issues in Society and Ethics in Journalism satisfy the goal of developing students' ability to "make decisions that are based on ethical principles." The western culture, social sciences, and mathematics and natural sciences courses focus on western culture, human

behavior, and the natural world, respectively, and introduce the methods of inquiry appropriate to the various disciplines.

A major goal of the university is "an integrated curriculum designed not only to provide the scientific and humanistic knowledge necessary to enable students to become fully human, but also to demonstrate the unity of all forms of knowledge and to enable students to assume leadership in the modern world." During the 1984-85 academic year faculty members are making a concerted effort throughout the institution to promote this kind of integration, reports Joseph L. Subbiondo, dean of the College of Arts and Sciences.

A college curriculum committee, comprised of representatives from each of the University Curriculum's seven areas, is meeting to explore ways to integrate and refine the curriculum more fully. Members are talking with instructors and students in their respective areas to explore the common features of their courses and devise ways to coordinate efforts. When many sections of one course are offered, as in introductory ethics, for example, the committee seeks to identify common themes and develop a consistent approach across all sections. The group is also developing mechanisms for relating courses to one another. For instance, courses in German language, German history, and art in Germany can be grouped together in a symposium. They would be taught in the same quarter, allowing students to take all three courses at once. At the same time, speakers and films on Germany can be brought to campus to supplement course work. The committee's work will culminate in a series of recommendations for specific actions.

Seminars Explore Curriculum Integration

With funds from the National Endowment for the Humanities, summer faculty seminars are being held in the various curriculum areas to promote further curricular integration. For example, to promote writing across the curriculum, faculty are attending seminars in writing and the humanities. Each summer ten faculty members from different fields will meet daily for two weeks to explore ways to enhance writing instruction in their courses. English instructors will lead the workshops, and guest speakers noted for their writing or teaching of writing will also participate.

In the western culture area, where students may fulfill requirements through a sequence of courses in history, art history, literature, or philosophy, faculty members from these departments will participate in a series of two-week summer institutes during a three-year period. Focusing on a particular historical period, they will share important aspects of their discipline in that period. The institutes will give participants a broader, more diversified background and help them integrate course materials. Similar activities in each curriculum area will bring instructors together to discuss common concerns and to apply common principles in their courses.

During the 1984-85 academic year, administrators and faculty members are also planning an evaluation system for the new general education curriculum. Although it is not clear what form the evaluation will take, they will include interviews with both faculty and students. Student achievement will be measured in a variety of ways. It seems likely, says Subbiondo, that each department will evaluate student outcomes in a method that suits its discipline. For example, the biology department currently requires all majors to take the Graduate Record Examination. However, the philosophy department may find it more appropriate to require a senior seminar with a successful seminar paper.

An important aspect of this year's process of integrating, planning, and evaluating has been strong faculty involvement, reports Subbiondo. Faculty members have studied reports, talked with colleagues and students, met in committees, and developed some exciting ideas, he says. Because the programs and recommendations are the result of their thought and effort, the faculty feel fully involved in the program, and the process itself has enlivened the university atmosphere. —*M.R.*

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University of Tennessee at Martin

Evaluating Distribution Program Results

At the University of Tennessee at Martin (UTM), according to K. Paul Jones, assistant to the vice chancellor, there have been no significant changes in curriculum requirements for about 15 years, apart from dropping the physical education requirement in 1981 and adjusting the business administration curriculum in response to accreditation changes. As in the past, the university still requires that students choose general education courses from a broad pool of survey courses in the social sciences, the natural sciences, and the humanities.

A table published by UTM describes the general education hours required for graduation and displays them as a percentage of total hours demanded by the different schools within the university. While all schools require a minimum of approximately 200 quarter hours of course work from graduating students, the portion which must be taken up in general education courses varies considerably from one school to another. The School of Engineering Technology, for example, demands the most course work (204 hours), only 29 per cent of which (59 hours) must be taken from the general education offerings. In contrast, a Bachelor of Arts degree in English or modern foreign languages can be earned with 194 total hours, with 60 per cent (117 hours) consisting of general education courses.

There is some freedom of selection of courses which will satisfy the general education requirements, says Jones. These can also serve different functions: the same course might be taken by one student toward the general education requirements, by another as an introduction or prerequisite to an upper division course in a major field of study, or by a third as a lower division elective. Jones describes a typical distribution of general education courses within the School of Arts and Sciences as follows: 30 to 40 hours in the humanities, plus composition; 24 to 36 hours in the natural sciences; 18 to 27 hours in the social sciences; and about 10 hours of mathematics.

The university has been through several phases in curriculum evolution, according to Jones, but they have led to minor rather than dramatic changes. "Going back to the late sixties, when many schools dropped a large part of the general education requirements and really opened up quite a bit, we only loosened up slightly," he says. The latest cycle began in late 1982 when the chancellor called for a comprehensive curriculum review.

Some 18 months later, the Ad Hoc Committee on the Core Curriculum issued a report concluding that the needs of the university and the students alike could best be served by identifying "...the skills and competencies which...the students should attain rather than specifying the means (i.e., the particular courses) by which they might be expected to attain them." The committee also wrote that "in light of the necessity in many cases to meet requirements of external accrediting

agencies, responsibility for specifying the particular curriculum . . . should reside with the individual colleges or instructional units." (This group remains active, and is currently investigating the option of expanding the number of specific courses which must be taken by all students regardless of school or major. At present, says Jones, only freshman composition and a mathematics sequence are required of everyone.)

Employing ACT's COMP Examination

The Ad Hoc Committee's recommendations and the urging of the Tennessee Higher Education Commission led UTM to focus on student competencies as defined by the American College Testing Program's College Outcomes Measures Project (COMP), and to use the COMP methodology in evaluation of outcomes. The competencies are described in terms of three process categories (communication, problem solving, and clarifying values) and three content categories (functioning within social institutions, using science and technology, and using the arts and humanities). The COMP evaluation methodology provides two means to assess the effect of the general education program in developing the competencies: a Composite Examination and an Objective Test. Jones notes that UTM has been using the more complex and complete Composite Examination for five years now, on a randomly-chosen sample of freshmen and seniors. They now have their first longitudinal data, though Jones feels the sample size is too small to draw meaningful conclusions. For the time being, UTM has dropped the comprehensive testing of the sample groups in favor of testing all incoming freshmen and all graduating seniors, using the COMP Objective Test.

Each method has its weaknesses, Jones notes. The Composite Examination, for example, includes three written and three oral presentations, each of which must be laboriously reviewed by two faculty members for effectiveness and by a third for content. The speeches are delivered into a microphone and recorded for later review, rather than given live. The Objective Test, on the other hand, yields a greater volume of data, but it is not so rich, and cannot be used to assess individual student performance. Jones would like to see the comprehensive testing of small samples resumed at some point.

Nevertheless, Jones is positive about UTM's evaluation efforts. "The faculty have bought in to the necessity of gathering data" on outcomes, he observes. He sees a willingness to move beyond the mandate of the Higher Education Commission in identifying other means of gathering information, and to use that information to make changes if warranted. He concludes, "What we've achieved, compared to five years ago, is that we've gotten the faculty talking about, thinking about, and beginning to formulate much more clearly what the objective of our general education program should be." —*T.P.*

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Willamette University

Disciplinary Knowledge and Integrative Skills

In fall 1981 Willamette University faculty members implemented a general education curriculum that emphasizes both the theories and methods of five disciplinary areas and the skills necessary to integrate this knowledge. The new General Education Program (GEP) resulted from a three-year review of the undergraduate liberal arts curriculum. "We were responding, in part, to the revived interest in general education at the national level," says William G. Berberet, dean of the College of Liberal Arts. "We also recognized that our own curriculum had become very unstructured in the 1970s, with guidelines replacing requirements."

The GEP consists of two parts: discipline-based inquiry and integrative studies. For the first requirement, students complete one course each from the areas of fine arts, humanities, literature, natural sciences, and social sciences. The second requirement is fulfilled with two interdisciplinary courses that emphasize "the process of integrating and using knowledge in making value judgments and ethical decisions," according to a program description.

An appointed committee developed rationale and objectives statements for each area in the GEP. To further define these objectives, area faculty prepared more detailed criteria by which courses are measured for inclusion in the curriculum. Since the program's implementation, courses have undergone examination by various committees before receiving GEP approval. Administrators and faculty members also have begun to examine faculty and student reaction to the new requirements.

GEP approval begins with course reviews by the appropriate area faculty; integrative studies courses are reviewed by a committee drawn from the five disciplinary areas. Instructors submit proposals, detailing the content, methods of instruction, and reading materials of their courses and how they satisfy the criteria. The Academic Programs Committee next reviews the proposals and recommends courses to the Academic Council, which presents them to the full faculty for final approval.

"We want to be very clear about what we are trying to accomplish, says Berberet. "If we can't explain the rationale for what we are doing to ourselves and to students, we probably are not justified in doing it."

GEP humanities courses, for example, must emphasize "the analytical methods of disciplines which study civilization and culture," "the ethical questions encountered by man as a moral and social being," and "the critical and perceptive reading needed to carry on dialogue with a writer," among other objectives. Approved courses include Philosophical Problems, Western Civilization to 1715, and Introduction to Old Testament Studies. In their analysis of social, political, and economic processes, social science courses "develop increased capabilities for effective responsible citizenship" and explore "the value questions . . . inherent in . . . tensions between individual freedom and social responsibility." Introduction to Psychology and Principles of Sociology satisfy the GEP social science requirement.

Instructors discuss the interrelatedness of the disciplines in such integrative studies courses as The Age of Beethoven and Persuasion, Propaganda, and the Mass Media. The former course explores the social, political, and artistic context for Beethoven's music. Advertising and political rhetoric provide case studies of persuasion and propaganda techniques in the latter.

Student and Faculty Reactions

A faculty task force has prepared a survey which will be administered this spring to a random sample of seniors, the first class to complete all four years under the new GEP. Composed primarily of psychologists, sociologists, and educators with expertise in survey instruments, the task force has designed a questionnaire that examines such issues as the importance of liberal arts skills and the development of these skills through Willamette courses and experiences. Task force members will conduct follow-up interviews with additional students.

The task force is interested in learning the level of student satisfaction with the GEP and what students believed they have learned. They will combine this information with the responses gathered in 1984 during a values audit project of the Society for Values in Higher Education. The audit assessed what staff, trustees, faculty membrs, and administrators perceived to be Willamette's values, and how they related to their own values. Based on these findings, the Academic Council will determine if further reviews are needed.

Faculty members have also written assessments of how well their courses are meeting the area objectives. "This process," says Berberet, "helps call attention to the need to be highly self-conscious about what they are trying to accomplish." Students also evaluate faculty performance and course effectiveness in questionnaires distributed in each course.

To ensure continuing attention to GEP's objectives, the Academic Council has been reorganized to correspond with the five disciplinary areas. Berberet emphasizes that strong faculty support for general education is necessary to maintain its integrity and vitality. GEP's structure, he says, "is not simply a return to the past, but a conscious response to the needs of the future." —*P.A.B.*

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RESOURCES

Bergquist, William H.; Gould, Ronald A.; and Greenberg, Elinor Miller. *Designing Undergraduate Education*. San Francisco: Jossey-Bass, Inc. Publishers, 1981.

This description of contemporary curricular designs, with examples from hundreds of colleges and universities, examines basic assumptions about education. According to the authors, no dominant ideal currently pervades American higher education. Today's students are being prepared for careers rather than life. In order to educate the total man or woman, and do more than transfer information, institutions should design their curricula around six dimensions: time, space, resources, organization, procedures, and outcomes. Education outcomes should be defined using both an institutional/societal and a student-learning perspective. Institutional goals cover, for example, the fundamental aim of the institution, pre-existing and hoped-for student attributes or competencies, activities that will facilitate the acquisition of these attributes, and general program characteristics. Examples of desirable student outcomes—based on institutional expectations about the desired characteristics or competencies of its graduates—include the development of ethical principles consistent with democratic ideals, recognition of the interdependence of the different peoples of the world, and the acquisition and use of critical and constructive thinking skills and habits. While institutional outcomes are prepared for both external and internal audiences, student outcomes should be used exclusively for internal purposes. Ultimately, each college or university must create its own list of outcomes that accurately reflect its underlying assumptions and educational ideals.

Bloom, B.S., and others. *Taxonomy of Educational Objectives*. New York: McKay, 1956.

This taxonomy of the cognitive and affective domains of learning was developed in order to answer the question "What does a student do who 'really understands' which he does not do when he does not understand?" Bloom argues that educational objectives gain meaning by defining the objective in behavioral terms and placing it in an overall scheme or matrix. Evidence collected through tasks, tests, and observations can determine if the student has achieved the objective. Because evaluating learning outcomes involves different techniques to appraise thinking, feeling, and acting, the taxonomy can be useful in evaluation design. Cognitive objectives vary from simple recall of learned material to highly original and creative ways of combining and synthesizing new ideas and materials. Most educational objectives are included in this domain. Affective objectives, which emphasize a "feeling tone," "vary from simple attention to selected phenomena to complex but internally consistant qualities of character and conscience." The taxonomy for the affective domain is organized around "receiving, responding, valuing, organization, and characterization by a value or value complex." Bloom did not detail the third division of the taxonomy, the psychomotor domain, until later publications. Condensed versions of the taxonomies are provided.

Centra, John A. *Determining Faculty Effectiveness*. San Francisco: Jossey-Bass, Inc. Publishers, 1979.

This books discusses faculty assessment. Although it includes all the major responsibilities of faculty—teaching, scholarship, student advising, and public service—it stresses the most difficult and important area to assess, teaching. Drawing on 15 years of research, Centra discusses student ratings, evaluations by colleagues, and self-assessment.

Cobb, William Daniel. "General Education: Purposes and Perspectives." *Liberal Education* 69 (1983): 353-367.

Cobb argues that by asking the question of perspectives—of both institutions and students—the issues of subject matter and curricula will fall into place. The three qualities of liberal education—systematic thinking, integrative worldview, and evaluative insight—can be made effectively specific if they are self-consciously incorporated as goals within the student's regular classroom experiences. Cobb suggests that designers of general education curricula should define the perspectives they want students to gain rather than what courses they want them to take. The meaning of a "common core" is thus translated to indicate a set of common, specific perspectives. Liberal arts faculties will have to adopt a developmental perspective on the learning process and gear their teaching to meet the capacities and needs of their students. Variations of goals inventories, attitude and preference tests, and opinion polls are needed to collect base data on the effectiveness of the common discourse within a particular college or university.

Cronbach, Lee J., and others. *Toward Reform of Program Evaluation*. San Francisco: Jossey-Bass, Inc. Publishers, 1980.

Calling for reform in program evaluation, the authors posit that evaluation's goal is not to "eliminate fallibility of authority or to bolster its credibility." Rather, the goal is to facilitate a democratic, pluralistic process by enlightening all participants. Because evaluation is valuable in shaping policy, a most critical question must be asked: "Is worthwhile information being collected?" A well-conceived systematic inquiry involves appropriate comparisons and contrasts and can result in plausible inferences. Among the authors' "Ninety-five Theses" for evaluation reform are the arguments that "a theory of evaluation is as much a theory of political interaction as it is a theory of how to determine facts," and that "honesty and balance in program evaluation will be increased by critical review of the performance of evaluators and sponsors." Finally, the authors caution those conducting program evaluations to remember that scientific quality is not the principal standard of an evaluation; an evaluation should strive to be "comprehensible, correct, complete, and credible to partisans on all sides."

Dressel, P. *Handbook of Academic Evaluation*. San Francisco: Jossey-Bass, Inc. Publishers, 1976.

In this discussion of evaluation for administrators, faculty members,

and others involved in higher education, Dressel argues that evaluation will never be the sole basis of major decisions. However, because the central goal of higher education is to "inculcate in students the ability to make wise judgments—to evaluate," the evaluation process is critical. Institutions of higher learning should select effective—and cost-effective—evaluation processes when evaluating their own programs. When reviewing areas that directly affect students—selection, the learning environment, educational process, tests, grades, and instruction—evaluators should carefully consider the issues and alternatives involved in reviewing these processes before constructing or selecting data-collection procedures. Because the admission, classification, orientation, and placement of students can greatly determine the character and quality of an educational program, evaluation of these areas can greatly affect the scope and focus of the institution. Evaluating learning processes will affect not only learning styles and obstacles, but can lead to an examination of teaching style and objectives. Finally, a review of examinations and grading can lead to an assessment of comprehensive examinations as an effective means of evaluating general education.

Frederiksen, Norman. "The Real Test Bias: Influences of Testing on Teaching and Learning." *American Psychologist* 39 (March 1984):193-202.

After World War I, writes Frederiksen, standardized testing grew in use and sophistication and since then, economical, machine-scorable tests have taken precedence over other exams for large-scale testing programs. However, he notes, "multiple-choice tests tend not to measure the more complex cognitive abilities." He refers to the results of a 1982 National Assessment of Educational Progress report which indicated that although 17-year-olds could handle simple mathematical problems, answer literal comprehension questions, and write with few mechanical errors, their performances showed a decrease on items which required more complex cognitive skills (such as understanding mathematical principles and analyzing literary passages). Standardized, multiple choice tests elicit factual, surface knowledge, rather than analysis, interpretation and evaluation, asserts Frederiksen. "Most of the important problems one faces in real life," he writes, "are ill structured (they do not contain all the information needed to solve themselves), as are all the really important social political, and scientific problems in the world today. But ill-structured problems are not found in standardized achievement tests." Frederiksen advocates teaching students how to solve ill-structured problems through situational testing and feedback. He also maintains that testing only those skills that can be easily measured can "introduce bias against teaching important skills."

Gamson, Zelda F. and Associates. *Liberating Education*. San Francisco: Jossey-Bass Publishers, 1984.

The authors examine issues pertaining to liberal education, reporting on 14 liberal education programs that participated in the U.S. Department of Education's National Project IV. They describe how the different approaches "liberate students by cultivating their critical awareness, sharpening their skills of inquiry and analysis, and increasing their self-assurance and independence." In a chapter on evaluation, Terry H. Rogers emphasizes that evaluation is an "important aspect of pedagogy and its improvement." Including faculty in the design and methods of evaluations, helps build the commitment necessary for faculty to act on the results. An appendix outlines the topics, methods, and samples used in the 14 institutions' self-assessments.

Grant, D. *Monitoring On-Going Programs*. San Francisco: Jossey-Bass, Inc. Publishers, 1978.

This collection of eight essays on program monitoring covers program evaluation in business and industry, state and federal agencies, military organizations, and education. The two essays on education, by Cameron Fincher and Ulf P. Lundgren, both report difficulties in specifying the purposes for monitoring educational programs, which suggests a need for further clarification of the objectives of these programs. Fincher's discussion of the need for monitoring higher education programs advocates the establishment of an on-going monitoring system after the evaluation has been completed. A more effective monitoring process may grow out of three events—development of new testing measures, more management and planning tools, and government coordinating agency pressure for program review and assessment. Lundgren reviews the history of educational research and evaluation in Europe and the United States during the 20th century. After World War II, education came to be seen as a means to attain economic and social goals and educational change became one of the main instruments of social change. Lundgren concludes that educational change can be influenced but not controlled on any level, decision making and research do not exist in a one-to-one relationship, and evaluations cannot be linked to explicit goals.

Green, Thomas F. "Evaluating Liberal Learning: Doubts and Explorations." *Liberal Education* 68 (Summer 1982):127-138.

The author asserts that while evaluation is an intrusion into liberal learning, it is also a necessity for institutional management. Evaluations, he notes, are based on a utilitarian philosophy, which is "not implicit in the ideal of liberal learning." Green supports the existence of a domain of value called "educational worth." He writes that "... there are goods in the world, things we value, which have their consequences and utilities, but whose value, nevertheless, is either nonexistant or only most remotely detected in their consequences and utilities." Thus, as friends cannot be secured by securing the consequences of friendship, neither can a liberal education be attained by securing its consequences. We cannot evaluate liberal education by "summing its utilities," Green maintains. "The educational worth of the academic disciplines," says Green, "lies not in mastery of subject matter.... Their educational value, like the value of all such disciplines, lies rather in their capacity to cultivate the virtues essential for their corresponding practice, i.e., inquiry."

Heath, Douglass H. "Academic Predictors of Adult Maturity and Competence." *Journal of Higher Education 48* (November/December 1977): 613-632.

Heath maintains that there is no evidence that aptitude test results and grade-point averages predict adult competence and maturity. While some personality studies can identify traits associated with competence in different areas, he says, "none have yet focused specifically on the relation of academic predictors like SAT scores to a broad range of adult competencies." He believes that longitudinal studies which follow persons through the course of their lives are the best approach to studying and predicting behaviors. Heath reports the findings of such a longitudinal study done on 68 Haverford College male graduates, who were studied as freshmen and upperclassmen, and later when they were in their early thirties. Such measurements as SAT tests, college grades, department chair ratings of intellect, and receipt of college honors "were not found to predict several hundred measures of adult maturity and competence," (including marital, parental, and interpersonal competence) says Heath. However, he adds, "the measures, particularly increasing SAT scores, were found to be directly related to a variety of measures indexing psychological, particularly interpersonal, immaturity." The author asserts that exclusiveness in one discipline reinforces the suppression of emotions—thus leading to immaturity. "A liberal arts education," he writes, "encourages the maturity of youth. His maturity furthers his maturity as an adult, which in turn indirectly enhances a wide range of adult competencies." Traditional methods of measurement, however, do not predict the behaviors that reflect a liberal education (such as self-understanding, good citizenship, and identifying with others). Says Heath "... conventional academic measures do not adequately index the more important educational effects that may predict subsequent maturing and competence."

Keimig, Ruth Talbott. *Raising Academic Standards: A Guide to Learning Improvement*. ASHE-ERIC Higher Education Research Report No. 4, 1983.

Keimig believes that in the face of such factors as retrenchment, diminished resources, underprepared students, and a general mood of educational decline, learning improvement programs are essential to student achievement. Successful programs, she notes, are those that incorporate the developmental concept into the institutional mission and integrate learning services into the academic mainstream. Offering a model for developing such programs, Keimig describes her Decision Guide for Effective Programs as a system that can be used for the collection and interpretation of data which can then be used as a rationale for change. In addition, she sets up a Hierarchy of Learning Improvement Programs with four levels, starting at remedial courses and climaxing at learning systems which provide for the total learning needs of all students. She presents 26 variables for learning improvement (such as responsiveness to students, perception of the institution's responsibility, and the enforcement of competencies in academic courses) grouped within a Hierarchy of Decisions. "The potential of a particular decision to promote or inhibit change in the institution's academic programs is... an inherent value for ranking possible choices about policies and programs for improving learning," she writes. Administrators can evaluate learning improvement programs using these hierarchical models—the most sophisticated and productive decisions on the scale being those that lead to periodic evaluations of student needs and outcomes which are planned and implemented by the institution as a whole.

Kells, H.R. *Self-study processes: a guide for postsecondary institutions*. Washington, D.C.: American Council on Education, 1980.

Presenting a method to improve institutions and programs, this guide is a resource for participants in self-study processes. Self-study is a means of incorporating on-going research and self-analysis to promote institutional planning and effectiveness. Self-study should be internally motivated, have committed top leadership, have a design appropriate to the institution, clarify goals and assess achievement, encourage community participation, incorporate good leadership, assess and solve problems, produce a readable report, and result in the development of a better system of ongoing institutional research and self-analysis. Appended materials include the outcomes taxonomy and a list of outcome measures produced by the National Center for Higher Education Management Systems (NCHEMS). A list of major information sources and sample forms are also provided.

Kuh, George C. *Indices of Quality in the Undergraduate Experience*. AAHE-ERIC/Higher Education Research Report No. 4. Washington, D.C.: American Association for Higher Education, 1981.

Kuh attempts to develop greater clarity in defining quality of student experience by identifying and reviewing specific indices of quality. He analyzes the literature as it addresses three areas: multiple properties of quality, the utility of different methodological approaches to quality assessment, and the opinion and empirical research about quality in the undergraduate experience. His conclusions include a four-part framework that is both quantitative and qualitative in method.

Marcus, Lawrence. *The Path to Excellence: Quality Assurance in Higher Education*. Washington, D.C.: ERIC Clearinghouse on Higher Education, 1983.

This monograph explores the issues surrounding educational quality and public policy and calls for the inclusion of student achievement outcomes as valid indicators of institutional quality. Government's role in education, historically, has been to endow legitimacy or protect compelling national interests. However, increasing government financial aid and regulation in this century "has proven to be too costly to the institutions" because it infringes on "the liberty to decide 'on academic grounds who may teach, what may be taught, how it should be taught and who may be admitted to study.'" Even voluntary accreditation has failed to protect academe's best interest and to ensure quality educational programs. Accrediting associations lack the rigorous review processes to provide data to assure government and the public that education tax dollars produce a high quality product. More rigorous institutional self-regulation at more timely intervals is needed. Comprehensive institutional self-studies based on quantitative data should assess program goals and organization; fiscal resources; curriculum; faculty; students; and current issues, including problems, strengths, and future plans. Publicizing an outside consultant's review of the self-study would not only encourage debate, it would demonstrate the institution's concern about quality and its capacity for self-regulation.

McClelland, David C. "Testing for Competence Rather Than for Intelligence." *American Psychologist* 28 (January 1973):1-14.

Writing about the validity of aptitude tests, McClelland says that it is his "conviction that the evidence for their validity is by no means so overwhelming as most of us, rather unthinkingly, had come to think it was." He maintains that grades have not been found to be related to any other important behaviors. To test for competence rather than for a predetermined, culturally or racially biased definition of "intelligence," McClelland advises testers to use "criterion sampling," meaning that they must "get out of their offices where they play endless work and paper-and-pencil games and into the field where they actually analyze performance..." He also recommends that tests be designed to reflect changes in what the individual has learned and assess competencies involved in clusters of life outcomes (such as communication skills, patience, moderate goal setting, and ego development). McClelland recommends that teachers give students periodic feedback, reviewing test results with them to show them how they are progressing and growing. "Test results then become a device for helping students and teachers redesign the teaching-learning process to obtain mutually agreed-on objectives," he says.

Miller, R. *The Assessment of College Performance*. San Francisco: Jossey-Bass, Inc. Publishers, 1979.

This book identifies measures, policies, and procedures that help determine the extent to which an institution's goals and progress in achieving them are appropriate. Miller advocates a simple model of assessing college performance, composed of goals and objectives, needed human and material resources, and evaluation to determine progress toward those goals. The 45 proposed assessment criteria cover ten areas of institutional life. Responsible assessments examine the institutional objectives, the extent of student learning, and the effectiveness of faculty. Existing and planned academic progams, administrative leadership and competence, and fiscal management and accountability (among others) should also be reviewed. Student learning has been achieved if students give a good rating to their advising and counseling system, retention rates are reasonable, and an array of individualized and compensatory learning resources is available. Student learning is also successful if the student affairs administration is effective and if satisfactory progress toward learning goals is evident.

Lowell, A. J. "Examination by Subjects Instead of By Courses." *The Harvard Graduates' Magazine* 20 (June 1912):583-592.

Lowell writes that the earliest baccalaureate requirement was a general examination, which reflected the assumption that there was "a body of culture which all well educated men were expected to possess." This assumption was broken down with the requirement of satisfactory completion of a succession of courses, each with its own examination. He contrasts the American system of ascertaining what is learned in each course with the European system of measuring students' grasp of a subject at the end of several years, discussing the merits and defects of each approach; the latter, he maintains, is a truer picture of achievement and measures more than "plodding diligence." Noting that examination methods affect the

educational process, he calls for a comprehensive examination of the subject in which students have done the greater part of their work, in addition to distribution requirements (necessary because of the unrigorous training offered by secondary schools).

Pace, Robert C. *Measuring Outcomes of College*. San Francisco: Jossey-Bass, Inc. Publishers, 1979.

In exploring what is known about student achievement during college, achievement after college, and the organization and environment of institutions of higher education, Pace reviews landmark studies, data from large-scale testing programs and surveys, and surveys of institutions made over the past 50 years. He proposes future research to examine the ways in which knowledge and personal development interact throughout both the college years and adult life. Longitudinal studies of achievement test results for freshmen, sophomores, and juniors, as well as for seniors, are needed to clarify learning as an evolutionary process. Moreover, additional achievement tests are needed to assess not only cognitive but affective learning. These tests would measure students' acquaintance with significant concepts and theories in a variety of specializations; their "understanding and maturity in thinking about major ideas and values, such as justice, liberty, equality, and freedom;" and the integration of knowledge, values, and action. Alumni surveys, using comprehensive, standardized forms, could measure knowledge, personal and occupational satisfaction, intellectual interests and habits, the extent and quality of involvement in civic and cultural affairs, etc. In order to measure institutional effectiveness, Pace suggests developing an institutional case study format to examine the dynamics of the institution and program, student development and learning, and the ways in which the institution successfully adapts to change.

Peterson, R.E., and others. *Formulating College and University Goals: A Guide for Using the Institutional Goals Inventory*. Princeton, N.J.: Educational Testing Service, 1977.

This two-part guide to the Institutional Goals Inventory (IGI) provides both a description of the IGI and its development as well as technical data about the reliability and validity of the instrument. The review of the development of the IGI traces the evolution of both the conceptual framework and the item contents. Practical design considerations—determining project purposes and scope, and selecting survey samples—are discussed. The book reviews the standard report of institutional IGI results and provides numerous strategies for presenting and interpreting IGI data. Follow-up activities are important. Most IGI applications are practical and policy oriented, while a few are explorative and theoretical. IGI change-oriented applications include organization development, problem solving, and sociological approaches for institutional change. The IGI is also helpful in the Campus Action Team approach in which members of the university community meet to discuss and plan desired changes.

Project on General Education Models. *General Education: Issues and Resources*. Washington, D.C.: Association of American Colleges, 1980. (out-of-print).

Recognizing that strengthening general education is more than returning to past solutions, this book provides valuable background information for persons reviewing their general education efforts and planning new programs. Essays address such topics as historical and contemporary perspectives, student objectives, and evaluation and assessment, and provide annotated bibliographies.

Rogers, Terry Heitz, and Gamson, Zelda F. "Evaluation as a Developmental Process: The Case of Liberal Education." *The Review of Higher Education* 5 (Summer 1982):225-238.

This article describes National Project IV: Examining the Varieties of Liberal Education, a two-year program sponsored in 1979 by the Fund for the Improvement of Postsecondary Education (FIPSE). The project involved 14 institutions of higher education, whose project "associates" worked with the Center for the Study of Higher Education at the University of Michigan (the designated "resource institution"). Project IV had three primary goals: "to clarify the meaning of liberal education, to examine liberal education in each of the 14 programs, and to promote collaboration among Associates and between Associates and the Resource Institution." Rogers and Gamson note that faculty resisted the project's efforts to define liberal education in terms of outcomes, preferring to focus on the importance of process. As the project progressed, the authors found it difficult to evaluate the programs because of the diversity involved. From their experiences, Rogers and Gamson believe that more systematic and holistic evaluations should be applied to liberal education, observing that: "Evaluations based solely on the experimental paradigm are too narrow and over-simplified; many evaluations devalue the participants in the programs being evaluated, and many evaluations remove subjects from their setting." The authors prefer "anthropological" approaches to examining liberal education, recommending that evaluators rely more on observation, interview, journal writing, critical incident reporting, and group discussion than on questionnaires, standardized tests, and experimental set-ups.

Schomberg, Steven F. "Using the College Outcomes Measures Project to Measure College Outcomes." *Alternative Higher Education* 7 (1983):95-104.

Results of this field study of the College Outcomes Measures Project (COMP) at the University of Minnesota did not confirm COMP's previous field test findings which showed differentiation among majors if class was held constant. The COMP is a psychologically-oriented test developed by the American College Testing Program (ACT) to assess long-term cognitive outcomes. It measures knowledge and skills appropriate to functioning in social institutions, using science, using the arts, communicating, solving problems, and clarifying values. The 96 seniors in this study had similar COMP scores regardless of their major or program (humanities, social sciences, natural sciences, and the Inter-College Program). The study also revealed that COMP scores were related to self-reported academic achievement and aspiration, a sharp contrast to findings of previous field studies. In fact, had the COMP test been more difficult, the investigators assume that grade effect would have been even greater. COMP scores were unrelated to seniors' scores on satisfaction with their skills and knowledge in areas covered by COMP and with perceived benefits from their education. Other results indicated that COMP is not sophisticated enough for intra-institutional comparisons. However, it may be useful in determining gross differences in the quality of general/liberal education between institutions. The inconsistencies of these findings with ACT's suggest the need to further study the relationship of COMP to academic achievement and to prior measures of academic ability.

Select Committee of the Project on Redefining the Meaning and Purpose of Baccalaureate Degrees. *Integrity in the College Curriculum: A Report to the Academic Community*. Washington, D.C.: Association of American Colleges, 1985.

The final report of a three-year study of undergraduate education, this book discusses common curriculum problems and proposes nine intellectual, aesthetic, and philosophic experiences to overcome these. The experiences are critical analysis, literacy, understanding numerical data, historical consciousness, science, values, art, international and multicultural experiences, and study in depth; the committee emphasizes that these cannot be satisfied in a single course devoted to each area but must be integrated as fully as possible into all courses. In a brief chapter on accountability, the authors stress the importance of "developing evaluations that the public can respect." They write that an institution's effectiveness can be assessed through evaluation of students, programs, and faculty. Evaluating students, for example, requires an understanding of the preparation they bring to college and an assessment of the "cumulative difference" the curriculum has made on their capacities. Available for $3 (prepaid) from Box BDF, AAC, 1818 R St., N.W., Washington DC 20009.

Smallwood, Mary Lovett. *An Historical Study of Examinations and Grading Systems in Early American Universities*. Cambridge: Harvard University Press, 1935.

Smallwood reviews the evaluation methods of five institutions—Harvard, William and Mary, Yale, Mount Holyoke, and the University of Michigan—from the time of their founding to 1900. Until the late 1800s faculties were confident that they could measure differences in student achievement, believing that students' intellectual ability reflected the college's success in accomplishing its aims. The earliest forms of evaluation were written and oral examinations used to obtain degrees. The growth of the elective system changed the curriculum and thus the aims and methods of evaluation, with numbers and descriptive adjectives, as well as the weighting of subjects, being used in grading. The book includes a bibliography on evaluation techniques used in European and American institutions.

Smock, H. and Brandenburg, D. "Student Evaluation of Academic Programs." *Journal of Higher Education*, September/October 1978, pp. 489-503.

Smock and Brandenburg's report of a program-evaluation survey (PES) developed by the faculty-based Council on Program Evaluation (COPE) at the University of Illinois, Urbana-Champaign, found that undergraduate and graduate student perceptions about their education could benefit both departments and institutions. PES surveyed student perceptions of the level of difficulty of the major program and the amount of structure in the academic program, departmental admission standards, and course work orientation. Other surveyed perceptions included attitude toward major program, the extent of the challenge and of well-integrated program of study, and the overall quality of instruction and instructional materials. As a result of the survey, 64 percent of the departments took or were planning to take specific actions to deal with areas of reported dissatisfaction. While about two-thirds of the faculty representatives stated that the results documented their perceptions of student opinion, many were surprised by the strong strength of the opinions. Specific actions resulting from PES included meetings with students to discuss areas of dissatisfaction, ongoing committees on program evaluation and graduate student matters, and periodic meetings to improve communication with lower level undergraduates.

U.S. President's Commission on Higher Education. *Higher Education for American Democracy*. New York: Harper & Rowe, 1947.

This six-volume set of Commission reports was issued in response to concerns over the strains on colleges caused by vast numbers of returning World War II veterans. The Commission explored establishing goals, equalizing and expanding individual opportunity, and organizing, staffing, and financing higher education. The report is a re-examination of the objectives, methods, facilities, and roles of institutions of higher learning in American society. The Commission reported ways to extend educational opportunities—through federal aid and statutes—to minorities and to classes of citizens who had been heretofore unable to participate in postsecondary education. The report examines the adequacy of the curricula, particularly in international affairs and social understanding, and stresses the desirability of establishing a series of intermediate technical institutes and community colleges and of providing financing options. The last volume provides the resource data used by the Commission.

Warren, Jonathan R., editor. *Meeting the New Demands for New Standards*. No. 43. New Directions for Higher Education. San Francisco: Jossey-Bass Inc. Publishers, 1983.

Noting that quality, or its absence, is the current critical education issue, Warren maintains that judgments about higher education quality "are based on little more than folklore, nostalgic reminiscences, and personal preferences." He writes that better kinds of information are needed to gain some sense of the scope and level of higher education's accomplishments. He recommends that faculty from various institutions collaborate on examination questions for pertinent courses in order to compare experiences and gather needed information on educational achievement. Questions testing knowledge of content, understanding of general issues, and exercise of intellectual skills would provide details about various kinds of learning.

West, Dan C. "Providing Quality Education for the 1980s." *Liberal Education* 70 (1984):153-157.

According to West, quality education—the power, capacity, character, and attributes of learning—is needed to respond to the challenge of educating each individual student. Quality education can be found in both the obscure community college and the nationally famous research university. With quality education, those who teach and those who learn are involved in a process of change and growth. However, no method of accurately assessing quality in higher education is currently available. If differences are measured in terms of a single criterion such as test scores, the differences will be very pronounced, resulting in frustration over gross inequalities among individuals as well as among colleges and universities. If, however, other accomplishments, such as scholarly learning, moral virtue, artistic talent, civic participation, and adventurous spirit were all valued objectives in education, the overall inequality would be greatly lessened. The academic quality of a college should be based not only on such multidimensional criteria, but on the achievements of most or all of the faculty and students, and on how much students have learned while enrolled at the college.

Winter, David G.; McClelland, David C.; and Stewart, Abigail, J. *A New Case for the Liberal Arts*. San Francisco: Jossey-Bass, Inc. Publishers, 1982.

This book reports the results of several cross-sectional and longitudinal studies of students at liberal arts colleges and other postsecondary institutions "to demonstrate that liberal arts education has beneficial effects not produced by any other kind of training." The evaluation techniques assess competencies in such areas as critical thinking, leadership capacity, and adaptability and "show that liberal education contributes significantly to success in later life and that it produces benefits for society as well." The authors describe the new and old instruments used to measure the attainment of specific liberal arts goals, and an appendix details the sources, administration times, costs, and scoring of the various competence measures.

Wood, Lynn, and Davis, Barbara Gross. *Designing and Evaluating Higher Education Curricula*. AAHE-ERIC Higher Education Research Report No. 8, 1978.

Noting that the curriculum design and evaluation process is not well-documented, the authors assert that "as a topic of research, the curricula of higher education are too important to be neglected." They stress that although their monograph is not a definitive handbook, they intended it to be a basis for curriculum evaluation and a contribution to further study on the subject. Providing many examples of design and evaluation approaches, the monograph includes advice on how to evaluate existing curricula (through such methods as analysis of student transcripts and comprehensive exams); examples of methods for achieving consensus on curriculum goals (Delphi technique, and decision-theoretic approach); descriptions of evaluation models available (Scriven's Goal-Free Evaluation, Parlett and Hamilton's Illuminative Evaluation); and recommendations for overcoming obstacles to curriculum change (such as establishing timetables for implementation). Throughout their work, the authors identify case study examples to illustrate the use of these techniques and approaches. They assert that the design and evaluation processes are interrelated: "Evaluation is not something to be superimposed or tagged onto a curriculum development project; it involves a form of critical thinking and informed decision-making that lies at the very heart of the design process."